



**Quality Operating Guidelines
Customer Ingredient Specifications**

TITLE: CRANBERRY 90MX POWDER

UPC: 94513

DATE: 03 MAY 2011

SUPERSEDES: 01 SEPT 2010

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PRODUCT DESCRIPTION:

The powder is fine, free-flowing and rosy red in color. Processing consists of spray drying cranberry concentrate with magnesium hydroxide as the carrier and tri-calcium phosphate as an anti-caking agent. The powder contains approximately 90% cranberry solids. Cranberry 90MX Powder is prepared from the juice of sound, mature berries of the commonly cultivated cranberry plant (Genus/species – Vaccinium macrocarpon.) Processing conforms to all provisions of the Food, Drug and Cosmetic Act.

SPECIFICATIONS	TOLERANCE	METHOD
% Moisture	2% - 5%	MB-45
pH	3.50 – 4.50	pH meter (10% solution)
% Titratable Acidity (as citric acid)	8.5% w/w minimum	Titration
% Organic Acids (Quinic + Malic + Citric)	30% minimum	HPLC-AOAC Method
% Proanthocyanidins (PAC's)	0.50% minimum	Total PAC's via BL-DMAC method
Solubility	Good No Lumps	5g powder in 100 ml 50°F (10°C) water. Powder will completely dissolve in 2 minutes.
Bulk Density	0.450 – 0.600 g/cc	Tare 200-ml cup. Funnel in product and level with a straight edge. Divide weight by volume to obtain density.
Appearance	Fine, free-flowing and rosy red in color.	Visual
Flavor and Aroma (of solution)	Clean, typical cranberry flavors with no burned or off notes.	Sensory
Screen Analysis	Through 30 mesh 100% Through 100 mesh 95%	Rotap with hammer, 5 minutes

MICROBIOLOGICAL (per g or mL): Analysis represents an average sampling.	
Yeast	≤ 100 CFU per gram
Mold	≤ 100 CFU per gram
Aerobic Plate Count	≤ 1,000 CFU per gram
<i>Escherichia coli</i>	Negative in 25 grams
<i>Salmonella</i>	Negative in 25 grams

PACKAGING

94513 – Double poly-lined fiberboard drum with tamper-evident tape. One desiccant pouch is placed between the two sealed bags and another desiccant bag is on top of the outer sealed bag. Contains 50-lbs. (22.7 kg) powder net.

LABELING

All containers shall bear the following information: name of product including UPC, ingredients, net contents, manufacture date (year/Julian date), best before date (day/month/year) and lot number, Circle U Kosher, Ocean Spray® name and address.

INGREDIENTS

Cranberry Juice Concentrate, Magnesium Hydroxide, Tricalcium Phosphate [anti-caking agent]

STORAGE RECOMMENDATIONS

Recommend conditioned shipping and storage of 50°-70°F (10°-21°C), 50% relative humidity. Protect from moisture.

EXPECTED SHELF-LIFE

At least three years when protected from moisture and excessive heat.

OCEAN SPRAY® WARRANTS ONLY THAT THE CRANBERRY 90MX POWDER, 94513 SOLD SHALL CONFORM TO THESE SPECIFICATIONS. ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS, ARE EXCLUDED.