



TEST REPORT

Send To: BRUNSWICK ICE & COAL COMPANY, INC.
514 NEW STREET
LAWRENCEVILLE VA 23868


Customer: BRUNSWICK ICE & COAL COMPANY, INC. Plant: BRUNSWICK ICE & COAL COMPANY, INC.
514 NEW STREET 514 NEW STREET
LAWRENCEVILLE VA 23868 LAWRENCEVILLE VA 23868

Product: PURIFIED PACKAGED ICE PRODUCT
Test Type: SS - Special Testing

Thank you for having your product tested by NSF.

The enclosed report details the result of the testing performed on your product. Your program representative will be contacting you in the near future if there are any remaining issues concerning the status of this product.

Please do not hesitate to contact us if you have any immediate questions pertaining to your product.

Reviewer: 
Kurtis Kroen - Director, Chemistry Laboratory

Status: Pass

CC: Program: 0196 - Beverages Program
Program Rep: BECOE DEMO
Region: 01 - Domestic
PA Project: 907/548

789 N. Dixboro Road, Ann Arbor, Michigan 48105-9723 USA
1-800-NSF-MARK, 734-769-8010
www.nsf.org

General Information

Standard: 001W - BOTTLED WATER - FDA REGULATIONS

Brand Name: Brunswick
Client Name for Product: PURIFIED PACKAGED ICE PRODUCT
Date and Time Collected: 1-23-07 12:15
Sample Taken From: Bag Ice

Description: Purified Packaged Ice Product 1-23-07 12:15
Sample Date: 01/25/2007
Received Date: 01/25/2007

Testing Parameter	Result	Units	FDA Req.	P / F
Chemistry Lab				
* Ammonia				
* Alkaline Hg-KJ Test	Pass			
* Calcium				
Ammonium Oxalate Test	Pass			
* Carbon Dioxide				
Calcium Hydroxide Test	Pass			
* Chloride				
Silver Nitrate Test	Pass			
* Heavy Metals				
Hydrogen Sulfide Test	Pass			
* Oxidizable Substances				
Potassium Permanganate Test	Pass			
* pH				
pH	6.3			
* pH Test	Pass			
* Sulfate				
Barium Chloride Test	Pass			
* Total Solids				
Gravimetric Test	Pass			

Job Notes:

1-23-07 Sample is ice arriving at a temp. of 0°C.

Testing Laboratory:

Flag	Id	Address
All work performed at: (Unless otherwise specified)	NSF_AA	NSF INTERNATIONAL 789 N. DIXBORO ROAD ANN ARBOR MI 48105

References to Testing Procedures:

NSF Reference	Parameter / Test Description
C3201	* Ammonia
C3202	* Calcium
C3203	* Carbon Dioxide
C3204	* Chloride
C3205	* Heavy Metals
C3206	* Oxidizable Substances
C3207	* pH
C3208	* Sulfate
C3209	* Total Solids

Certifications:

Michigan (# 0048)	Florida (# E-87552 FL)	California (# 01149 CA)
New York (# 11206)	Connecticut (# PH-0625)	New Jersey (# 02770)
South Carolina (# 81005)	Pennsylvania (# 86-03032)	Arizona (# AZ0655)
Hawaii		

Test descriptions preceded by an asterisk "*" indicate that testing has been performed per NSF International requirements but is not within its scope of accreditation.

Purified Water - Official Monograph USP XXXI
(Nominal)H₂O 18.02

Purified Water is water obtained by distillation, ion-exchange treatment, reverse osmosis, or other suitable process. It is prepared from water complying with the regulations of the Federal Environmental Protection Agency with respect to drinking water. It contains no added substance.

Note: Purified Water is intended for use as an ingredient in the preparation of compendial dosage forms. Where used for sterile dosage forms, other than for parenteral administration, process the article to meet the requirements under Sterility Tests <71>, or first render the Purified Water sterile and thereafter protect it from microbial contamination. Do not use Purified Water in preparations intended for parenteral administration. For such purposes use Water for Injection, Bacteriostatic Water for Injection, or Sterile Water for Injection.

Packaging and storage—Where packaged, preserve in light containers.

Labeling—Where packaged, label it to indicate the method of preparation.
pH—<7>1; between 5.0 and 7.0, determined potentiometrically in a solution prepared by the addition of 0.30 mL of saturated potassium chloride solution to 100 mL of test specimen.
Chloride—To 100 mL, add 5 drops of nitric acid and 1 mL of silver nitrate TS; no opalescence is produced.
Sulfate—To 100 mL, add 1 mL of barium chloride TS; no turbidity is produced.
Ammonia—To 100 mL, add 2 mL of alkaline mercuric-potassium iodide TS; any yellow color produced immediately is not darker than that of a control containing 30 µg of added NH₃ in High-purity Water (see under Reagents in <661>B(3) 3 ppm).

Calcium—To 100 mL, add 2 mL of ammonium oxalate TS; no turbidity is produced.
Carbon dioxide—To 25 mL, add 25 mL of calcium hydroxide TS; the mixture remains clear.
Heavy metals—Adjust 40 mL of Purified Water with 1 N acetic acid to a pH of 3.0 to 4.0 (using short-range pH indicator paper), add 10 mL of freshly prepared hydrogen sulfide TS, and allow the liquid to stand for 10 minutes; the color of the liquid, when viewed downward over a white surface, is not darker than the color of a mixture of 50 mL of the same Purified Water with the same amount of 1 N acetic acid as was added to the test specimen, matched color-comparison tubes being used for the comparison.

Oxidizable substances—To 100 mL, add 10 mL of 2 N sulfuric acid, and heat to boiling. Add 0.1 mL of 0.1 N potassium permanganate, and boil for 10 minutes; the pink color does not completely disappear.

Total solids—Evaporate 100 mL on a steam bath to dryness, and dry the residue at 105° for 1 hour; not more than 1 mg of residue remains (0.01%).

Bacteriological purity—Complies with the Federal Environmental Protection Agency regulations for drinking water with respect to bacteriological purity (40 CFR 141.14, 141.21).



1 165.110 Bottled water.

(a) **Identity**—(1) Description. Bottled water is water that is intended for human consumption and that is sealed in bottles or other containers with no added ingredients except that it may optionally contain safe and suitable antimicrobial agents. Fluoride may be optionally added within the limitations established in §165.110(b)(4)(ii). Bottled water may be used as an ingredient in beverages (e.g., diluted juices, flavored bottled waters). It does not include those food ingredients that are declared in ingredient labeling as "water," "carbonated water," "disinfected water," "filtered water," "fetter water," "nada water," "sparkling water," and "ionic water." The processing and bottling of bottled water shall comply with applicable regulations in part 129 of this chapter.

(2) **Nomenclature**. The name of the food is "bottled water," "drinking water," or alternatively one or more of the following terms as appropriate:

(i) The name of water from a well tapping a confined aquifer in which the water level stands at some height above the top of the aquifer is "artesian water" or "artesian well water." Artesian water may be collected with the assistance of external force to enhance the natural underground pressure. On request, plants shall demonstrate to appropriate regulatory officials that the water level stands at some height above the top of the aquifer.

(ii) The name of water from a subsurface saturated zone that is under a pressure equal to or greater than atmospheric pressure is "ground water." Ground water must not be under the direct influence of surface water as defined in 40 CFR 141.2.

(iii) The name of water containing not less than 250 parts per million (ppm) total dissolved solids (TDS), coming from a source tapped at one or more bore holes or springs, originating from a geologically and physically protected underground water source, is "mineral water." Mineral water shall be distinguished from other types of water by its constant level and relative proportions of minerals and trace elements at the point of emergence from the source, due account being taken of the cycles of natural fluctuations. No minerals may be added to this water.

(iv) The name of water that has been produced by distillation, deionization, reverse osmosis, or other suitable processes and that meets the definition of "purified water" in the United States Pharmacopoeia, 23d Revision, January 1, 1995, which is incorporated by reference in accordance with 5 U.S.C. 551(a) and 1 CFR part 31. (Copies may be obtained from the United States Pharmacopoeial Convention, Inc., 12601 Twinbrook Pkwy., Rockville, MD 20852 and may be examined at the Center for Food Safety and Applied Nutrition's Library, 5100 Paint Branch Pkwy., College Park, MD 20740, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.) J. may be "purified water" or "deionized water." Alternatively, the water may be called "deionized water" if the water has been produced by deionization; "distilled water" if it is produced by distillation; "reverse osmosis water" if the water has been



processed by reverse osmosis, and "drinking water" with the blank being filled in with one of the defined terms describing the water in this paragraph (e.g., "purified drinking water" or "deionized drinking water").

(v) The name of water that, after treatment and possible replacement of carbon dioxide, contains the same amount of carbon dioxide from the source that is had at emergence from the source may be "sparkling bottled water."

(vi) The name of water derived from an underground formation from which water flows naturally to the surface of the earth may be "spring water." Spring water shall be collected only at the spring or through a bore hole tapping the underground formation feeding the spring. There shall be a natural force causing the water to flow to the surface through a natural orifice. The location of the spring shall be identified. Spring water collected with the use of an external force shall be from the same underground stratum as the spring, as shown by a measurable hydraulic connection using a hydrogeologically valid method between the bore hole and the natural spring, and shall have all the physical properties, before treatment, and be of the same composition and quality, as the water that flows naturally to the surface of the earth. If spring water is collected with the use of an external force, water must continue to flow naturally to the surface of the earth through the spring's natural orifice. Plans shall demonstrate, on request, to appropriate regulatory officials, using a hydrogeologically valid method, that an appropriate hydraulic connection exists between the natural orifice of the spring and the bore hole.

(vii) The name of water that meets the requirements under "Sterility Tests" <71> in the United States Pharmacopoeia, 23d Revision, January 1, 1995, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR 31. (Copies may be obtained from the United States Pharmacopoeial Convention, Inc., 12601 Twinbrook Pkwy., Rockville, MD 20852 and may be examined at the Center for Food Safety and Applied Nutrition's Library, 5100 Paint Branch Pkwy., College Park, MD 20740, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.) J. may be "sterile water." Alternatively, the water may be called "sterilized water."

(viii) The name of water from a bore hole drilled, or otherwise constructed in the ground which taps the water of an aquifer may be "well water."