



LEGACY REPORT

NER-643*

Reissued February 1, 2006

ICC Evaluation Service, Inc.
www.icc-es.org

Business/Regional Office ■ 5360 Workman Mill Road, Whittier, California 90601 ■ (562) 699-0543
Regional Office ■ 900 Montclair Road, Suite A, Birmingham, Alabama 35213 ■ (205) 599-9800
Regional Office ■ 4051 West Flossmoor Road, Country Club Hills, Illinois 60478 ■ (708) 799-2305

Legacy report on the 2000 *International Building Code*® the 2001 *Supplement to the International Codes*®, the 2000 *International Residential Code*®, the BOCA® *National Building Code/1999*, the 1999 *Standard Building Code*®, the 1997 *Uniform Building Code*™, and the 1998 *International One- and Two- Family Dwelling Code*®

DIVISION 06—WOOD AND PLASTICS
Section 06070—Wood Treatment

VIANCE, LLC
200 EAST WOODLAWN ROAD, SUITE 350
CHARLOTTE, NORTH CAROLINA 28217
704-522-0825
www.viance.net

LISTEES AND WOOD TREATMENT LOCATIONS:

ARIZONA PACIFIC WOOD PRESERVING CORPORATION
850 WEST CHAMBERS
ELOY, ARIZONA 85231

APPALACHIAN FOREST PRODUCTS
121 SPRING STREET
MOSHEIM, TENNESSEE 37818

BB&S OF NEW ENGLAND
61 BONNEAU ROAD
NORTH KINGSTOWN, RHODE ISLAND 02852

BESTWAY OF PENNSYLVANIA, INC.
3870 SR 191/390
CRESCO, PENNSYLVANIA 18326

BLUE RIDGE WOOD PRESERVING
1220 HENDRICKS STORE ROAD
MONETA, VIRGINIA 24121

C.M. TUCKER LUMBER COS., LLC
601 NORTH PEARL STREET
PAGELAND, SOUTH CAROLINA 29728

CENTRAL NEBRASKA WOOD PRESERVERS
105 OWEN STREET
SUTTON, NEBRASKA 68979

COAST WOOD PRESERVING INC.
3150 TAYLOR DRIVE
UKIAH, CALIFORNIA 95482

COASTAL TREATED PRODUCTS, COMPANY
385 WATERWAY ROAD
OXFORD, PENNSYLVANIA 19363

COLLUM LUMBER MILL
1723 BARNWELL HIGHWAY, BOX 535
ALLENDALE, SOUTH CAROLINA 29810

COOS HEAD FOREST PRODUCTS, INC.
P.O. BOX 750
COOS BAY, OREGON 97420

CULPEPER WOOD PRESERVERS
15487 BRAGGS CORNER ROAD
CULPEPER, VIRGINIA 22701

FONTANA WOOD PRESERVING, INC.
15500 VALENCIA AVENUE
FONTANA, CALIFORNIA 92335

GEORGIA PACIFIC CORPORATION
3077 CARTER HILL ROAD
MONTGOMERY, ALABAMA 36111

IOWA WOOD PRESERVERS
2101 SOUTH 17TH STREET
OSKALOOSA, IOWA 52577

LAND AND SEA FOREST PRODUCTS
400 ROCK RUN ROAD
FAIRLESS HILLS, PENNSYLVANIA 19030

NORTHERN CROSSARM CO., INC.
11278 COUNTY HIGHWAY X
CHIPPEWA FALLS, WISCONSIN 54729

PACIFIC WOOD PRESERVING
5601 DISTRICT BLVD.
BAKERSFIELD, CALIFORNIA 93309

POLLARD LUMBER CO., INC.
5863 WASHINGTON ROAD
APPLING, GEORGIA 30802

POTOMAC SUPPLY
1398 KINSALE ROAD
KINSALE, VIRGINIA 22488

SCHROTH INDUSTRIES, INC.
145 MARTIN ROAD
INDIANA, PENNSYLVANIA 15701

*Revised February 1, 2008



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SUNBELT FOREST PRODUCTS CORPORATION
HIGHWAY 17 AND SPIRIT LAKE ROAD
BARTOW, FLORIDA 33830

SUPERIOR WOOD TREATING
13702 STEWART ROAD
SUMNER, WASHINGTON 98930

THUNDERBOLT WOOD TREATING
3400 PATTERSON ROAD
RIVERBANK, CALIFORNIA 95367

1.0 SUBJECT

- 1.1 ACQ Preserve® treated wood
- 1.2 ACQ Preserve Plus® treated wood

2.0 PROPERTY FOR WHICH EVALUATION IS SOUGHT

Preservative-Treated Wood

3.0 DESCRIPTION

3.1 General

ACQ Preserve® and ACQ Preserve Plus® pressure treated wood products are appropriate for use in situations where the applicable *Code* requires wood members to be protected against decay or termites.

ACQ Preserve® and ACQ Preserve Plus® brand wood preservatives are produced by Viance, LLC and used by independently owned and operated wood preserving plants to pressure treat wood products in accordance with Standard ACQ-2008 Quality Control Procedures for ACQ Preserve pressure treated wood products. ACQ Preserve Plus® contains a factory applied emulsion water repellent additive.

ACQ Preserve® and ACQ Preserve Plus® products are appropriate for use in above-ground, ground contact, and fresh water contact applications and resist attack by rot, fungal decay, and subterranean termites, including Formosan termites.

3.2 Preservative System

ACQ Preserve® and ACQ Preserve Plus® preservatives are waterborne, Copper-Quat preservative systems used for pressure treatment of wood members that are required by the applicable *Code* to be protected against fungal decay or termites, or where such protection is desired.

ACQ Preserve® and ACQ Preserve Plus® compositions are based on copper combined with a quaternary ammonium compound (quat). These active ingredients are dissolved in an alkaline carrier system of ethanolamine and/or ammonia, which aids in preservative penetration and permanence in wood. The ratio of copper, expressed as CuO, to quat is 2:1, by weight.

3.3 Materials

ACQ Preserve and ACQ Preserve Plus® are used to pressure treat the following materials:

- 3.3.1 Dimensional lumber and timbers of the following sapwood species: Southern Pine, Ponderosa Pine, Red Pine, Radiata Pine, and Caribbean Pine.

- 3.3.2 Dimensional lumber and timbers of the following heartwood species: Douglas-Fir, Western Hemlock, Hem-Fir, Lodgepole Pine, Jack Pine, and Redwood.

- 3.3.3 Maximum nominal size of 2-by-8 in all species listed for "decking use" only.

- 3.3.4 Southern Pine and Douglas-Fir plywood.

- 3.3.5 Round and sawn posts and building poles of Southern Pine, Ponderosa Pine, Red Pine, Douglas-Fir, Hem-Fir and Western Hemlock.

Minimum preservative retention levels are provided in Table 1.

3.4 Treatment and Processing

Only the vacuum-pressure treating process described in American Wood-Preservers' Association (AWPA) Processing and Treatment Standard T1-07, Preservative Standard P 5 and User Specification for treated Wood U1 shall be used to produce ACQ Preserve® and ACQ Preserve Plus® treated wood products.

The minimum preservative retention levels are shown in Table 1. Other processing provisions including the minimum preservative penetration requirements are specified in the approved quality control manual. The use of incising may be required to meet the minimum penetration requirements in certain species or sizes of materials.

3.5 Quality Assurance

Treatment of materials is conducted in the facilities noted in Table 3 with quality control inspections by Timber Products Inspection Inc. (AA-664 and AA-696) or Southern Pine Inspection Bureau (AA-680).

3.6 Corrosion

Metals used in contact with ACQ Preserve® and ACQ Preserve Plus® pressure treated wood shall be hot dip galvanized, stainless steel or triple coated zinc polymer materials. Carbon steel, aluminum, red brass and bronze shall not be used in contact with ACQ Preserve® and ACQ Preserve Plus® treated wood products.

3.7 AWPA Standards

ACQ Preserve® and ACQ Preserve Plus® Preservatives and ACQ Preserve® and ACQ Preserve Plus® Pressure-Treated Wood standards and specifications rely primarily on those recognized by the American Wood-Preservers' Association (AWPA). Additional specifications set forth by Viance LLC are proprietary and may differ from AWPA standards.

All applicable AWPA Standards are listed in Section 6 of this report.

4.0 INSTALLATION

4.1 General

ACQ Preserve® and ACQ Preserve Plus® pressure treated wood is installed as preservative-treated lumber, timbers and plywood in accordance with the requirements of the applicable *Code*.

The manufacturer's and industry published installation instructions for wood and pressure-treated wood and this report shall be strictly adhered to and a copy of these shall be available at all times on the job site during installation.

The instructions within this report govern if there are any conflicts between the manufacturer's instructions and this report.

4.2 Applications

ACQ Preserve® and ACQ Preserve Plus® pressure treated products are permitted in locations where wood is used and/or in locations required by the applicable Code to be fungal decay and/or termite resistant. The treated wood members are listed for use in above-ground and ground contact applications. Typical applications are listed below in Table 2.

Locations requiring preservative-treated wood for fungal decay and/or termite resistance are listed in:

Section 2304.11	<i>International Building Code</i>
Section 2304	<i>Standard Building Code</i>
Section 2311	<i>BOCA National Building Code</i>
Section 2306	<i>Uniform Building Code™</i>
Sections R323, R324	<i>International Residential Code™ for One- and Two-Family Dwellings</i>
Sections 322, 323	<i>International One and Two Family Dwelling Code.</i>

4.3 Fasteners

The fasteners used with the product shall be hot dip galvanized, stainless steel or triple coated zinc polymer materials.

4.4 Structural

The maximum load duration factor allowed for structural members pressure-treated with ACQ Preserve® and ACQ Preserve Plus® Preservatives shall be 1.6 in accordance with section 2.3 of the AFPA, National Design Specification for Wood Construction.

5.0 IDENTIFICATION

ACQ Preserve® and ACQ Preserve Plus® preservative-treated lumber and plywood must be labeled with the name of the inspection agency (Timber Products Inspection Inc. or Southern Pine Inspection Bureau, Inc.); the product name (ACQ Preserve and ACQ Preserve Plus) or logo (see Figure 1); the treatment company name and plant location (refer to Table 3); the names of the preservative components; the intended end use; and the evaluation report number (NER-643). A sample label is shown as Figure 1.

6.0 EVIDENCE SUBMITTED

6.1 American Wood-Preservers' Association (AWPA) Standards.

6.1.1 AWPA Analytical Standards A2-98 (sections 1 and 6), A3-00, A9-00, A11-93, A16-93, A17-97, A18-99, A21-00.

6.1.2 AWPA Commodity Standards C1-00, C2-00, C4-99, C5-00, C9-00, C14-99, C15-00, C16-00, C17-00, C22-96.

6.1.3 AWPA Preservative Standard P5-01.

6.2 AWPA Reports of Treatments Subcommittees.

6.2.1 Report of Subcommittee T-2, Lumber and Timbers, September 23, 1992.

6.2.2 Report of Subcommittee T-8, Composites, September 23, 1992.

6.2.3 Report of Subcommittee T-2, Lumber and Timbers, September 14, 1994.

6.2.4 Report of Subcommittee T-2, Lumber and Timbers, September 27, 1995.

6.2.5 Report of Subcommittee T-8, Composites, September 27, 1995.

6.3 Technical Information on the Use of ACQ (Alkaline Copper Quaternary) Preserve as a Wood Preservative, Chemical Specialties, Inc., dated February 2002.

6.3.1 Laboratory Tests

- Soil Block Tests, AWPA E10-91.
- Agar Block Tests, EN 113 and EN 84 Leaching, BAM, Berlin, Germany, Danish Technological Institute, Tastrup, Denmark, and EMPA (Swiss Federal Laboratories for Materials Testing and Research).
- Termite Tests, CSIRO Australian Laboratory Choice Test Method, CSIRO, Melbourne, Australia.

6.3.2 Simulated Field Tests

- Soil Bed Exposure Test, AWPA E14-94.

6.3.3 Field Tests

- Ground Contact Field Stake Tests, AWPA E7-93 at Hilo, HI, Harrisburg, NC, and Gainesville, FL.
- Ground Contact Field Stake Tests, AWPA E7-93 at Dorman, MS and Saucier, MS, Mississippi Forest Products Laboratory, MSU, Starkville, MS.
- Ground Contact Field Stake Tests, AWPA E7-93 at Innisfail, North Queensland, Australia and Canal Creek, North Queensland, Australia, DPI Queensland Forest Service.
- Ground Contact Field Stake Tests, European Standard EN 252 at Simlångsdalen, Sweden and Vikki, Finland, Swedish University of Agricultural Sciences (SLU).
- Ground Contact Field Stake Tests, AWPA E7-93 at Whakarewarewa, New Zealand, New Zealand Forest Research Institute.

6.3.4 Preservative Permanence

- Laboratory Leaching Test, AWPA E10-87 and E11-87, Michigan Technological University.
- Depletion from Soil Bed Test Samples, AWPA E14-94.
- Depletion from Ground Contact Stakes, E7-93 at Hilo, HI and Gainesville, FL.

6.3.5 Effects on Wood Properties

- Static Bending Strength Test, ASTM D 143, Clemson University and Michigan Technological University.
- Glueline Shear Properties of 4-ply 15/32 Southern Pine Plywood, Michigan Technological University.

- 6.3.6** Corrosivity
- Corrosion of Metals by Treated Wood, AWPA E12-94.
- 6.3.7** Treatment Testing
- Treatment Trials of Various Wood Species, Vacuum-Pressure Method described in AWPA C1.
- 6.4** Viance, LLC Quality Control Procedures for ACQ Preserve pressure treated wood products, Standard ACQ-2008, Revision 1, dated January, 2008.

7.0 CONDITIONS OF USE

The ICC-ES Subcommittee for the National Evaluation Service finds that the ACQ Preserve® and ACQ Preserve Plus® pressure treated wood as described in this report complies with or is a suitable alternate to that specified in the 2000 *International Building Code*®, the 2001 *Supplement to the International Codes*®, the 2000 *International Residential Code*®, the BOCA® *National Building Code/1999*, the 1999 *Standard Building Code*®, the 1997 *Uniform Building Code*™, and the 1998 *International One- and Two- Family Dwelling Code*® subject to the following conditions:

- 7.1** This Evaluation Report and the manufacturer's published installation instructions, when required by the code official, shall be submitted at the time of permit application.
- 7.2** The ACQ Preserve® and ACQ Preserve Plus® products are limited to the wood species and minimum retentions noted under Section 3.3 and Table 1.
- 7.3** The treatment process complies with this report and Viance, LLC Standard ACQ-2008 Quality Control Procedures for ACQ Preserve® pressure treated wood products.
- 7.4** Dimensional lumber designated for "Decking Use" shall be a maximum of 2 inches thick and 8 inches wide.
- 7.5** The product is limited to the applications noted under Section 4.2.
- 7.6** ACQ Preserve® and ACQ Preserve Plus® pressure treated wood preservatives shall not be used to treat LVL, OSB, or FRTW wood products.
- 7.7** Surface treatment of field cuts shall be in accordance with the manufacturer's recommendations.
- 7.8** In areas where a soil treatment/barrier termiticide treatment is required by the applicable Code or local code official, ACQ Preserve® and ACQ Preserve Plus® pressure treated wood is used only as supplemental protection from termites and is not a replacement for required treatments or barriers.
- 7.9** ACQ Preserve® and ACQ Preserve Plus® pressure treated wood has not been evaluated for exposure to salt water.
- 7.10** Treatment of wood products is at the facilities of the treaters noted in Table 3, under a quality control program with inspections by Timber Products Inspection Inc. (AA-664 and AA-696) or Southern Pine Inspection Bureau (AA-680).
- 7.11** This report is subject to periodic re-examination. For information on the current status of this report, contact the ICC-ES.

TABLE 1—MINIMUM PRESERVATIVE RETENTION REQUIREMENTS FOR ACQ PRESERVE® AND ACQ PRESERVE PLUS® TREATED WOOD PRODUCTS BY END USE

END USE	ACQ PRESERVE MINIMUM ACTIVES ^{1,2} RETENTION PCF (KG/M ³)	ACQ PRESERVE PLUS MINIMUM ACTIVES ^{1,2} RETENTION PCF (KG/M ³)
Above Ground - General Use	0.15 (2.4)	0.15 (2.4)
Decking & Specialties Use - Above Ground		
● Sapwood Species Listed in Section 3.3.1	0.15 (2.4)	0.15 (2.4)
● Heartwood Species Listed in Section 3.3.2	0.15 (2.4)	0.15 (2.4)
Ground Contact	0.40 (6.4)	0.40 (6.4)
Critical Structural Members	0.60 (9.6)	0.60 (9.6)
Wood Foundation Systems	0.60 (9.6)	0.60 (9.6)

Table 1 Notes:

¹ Actives retention expressed as CuO + quat

² Pounds of preservative per cubic foot of wood

TABLE 2—TYPICAL APPLICATIONS FOR ACQ PRESERVE® AND ACQ PRESERVE PLUS® PRESSURE TREATED WOOD PRODUCTS


SERVICE CONDITIONS	TYPICAL APPLICATIONS
Above Ground	Decking, Rails, Spindles, Trim and Fascia, Framing, Flooring, Sill Plates, Trellises, Gazebos, Fencing
Ground Contact	Deck Support Posts, Fence Posts
Critical Structural	Permanent Wood Foundations, Building Poles


TABLE 3—WOOD PRESERVATIVE TREATMENT LOCATIONS


LISTEES	WOOD PRESERVATIVE TREATMENT LOCATIONS
Arizona Pacific Wood Preserving Corp.	Eloy, AZ
Appalachian Forest Products	Mosheim, TN
BB & S of New England	North Kingstown, RI
Bestway of Pennsylvania	Cresco, PA
Blue Ridge Wood Preserving	Moneta, VA
C. M. Tucker Lumber Cos., LLC	Pageland, SC
Central Nebraska Wood	Sutton, NE
Coast Wood Preserving, Inc.	Ukiah, CA
Coastal Treated Products, Co.	Oxford, PA
Collum Lumber Mill	Allendale, SC
Coos head Forest Products, Inc.	North Bend, OR
Culpeper Wood Preservers	Culpeper, VA Streator, IL Columbia, SC Fredericksburg, VA
Fontana Wood Preserving, Inc.	Fontana, CA
Georgia Pacific/Southeast Wood Treating	Athens, AL Henderson, NC Pleasant Hill, MO Rock Hill, SC Mineola, TX Rochelle, IL Nauvoo, AL Rockledge, FL Louisville, AL
Iowa Wood Preserving	Oskaloosa, IA
Land and Sea Forest Products	Fairless Hills, PA
Northern CrossArm Co., Inc.	Chippewa Falls, WI
Pacific Wood Preserving	Bakersfield, CA Sheridan, OR
Pollard Lumber	Appling, GA
Potomac Supply	Kinsale, VA
Schroth Industries, Inc.	Indiana, PA
Sunbelt Forest Products	Bartow, FL
Superior Wood Treating	Sumner, VA
Thunderbolt Wood Treating	Riverbank, CA


TABLE 4— ALTERNATE BRAND NAMES BY INDIVIDUAL LISTEES FOR LUMBER AND PLYWOOD TREATED WITH ACQ PRESERVE AND PRESERVE PLUS


COMPANY	PRIVATE BRAND NAME	
Viance, LLC	Preserve	Preserve Plus
Appalachian FP	Top Choice/Severe Weather	Top Choice/Severe Weather
Bestway of Pennsylvania	Top Choice/Severe Weather	Top Choice/Severe Weather
C.M. Tucker	Top Choice/Severe Weather	Top Choice/Severe Weather
Collum Lumber Mill	Top Choice/Severe Weather	Top Choice/Severe Weather
Culpeper Wood Preservers	Prodigy, Pure Pine	Prodigy, Pure Pine
Coos Head Forest Products	Durawood/Cedar Treat	Durawood/Cedar Treat
Georgia Pacific/SE Wood	Top Choice/Severe Weather	Top Choice/Severe Weather
Land and Sea Forest Products	Top Choice/Severe Weather	Top Choice/Severe Weather
Pollard Lumber	Top Choice/Severe Weather	Top Choice/Severe Weather
Potomac Supply	Top Choice/Severe Weather	Top Choice/Severe Weather
Sunbelt Forest Products	Tropical Decking	Tropical Decking

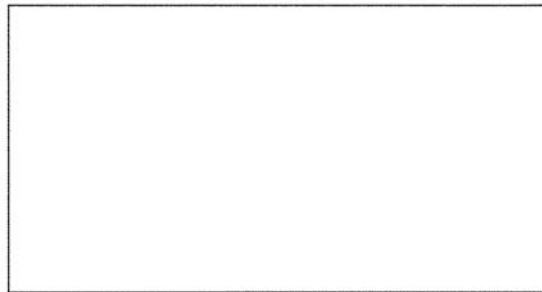
 ACQ 0.15
ABOVE GROUND USE
MONITORED BY
PRESSURE TREATED (Inspection Agency Name)
08-09 IN ACCORDANCE WITH
VIANCE/ACQ PROCEDURES
(NER-643)
WOOD TREATMENT CO.
CITY, STATE


 ACQ 0.60
GROUND CONTACT USE
MONITORED BY
PRESSURE TREATED (Inspection Agency Name)
08-09 IN ACCORDANCE WITH
VIANCE/ACQ PROCEDURES
(NER-643)
WOOD TREATMENT CO.
CITY, STATE

 ACQ 0.20
ABOVE GROUND USE
MONITORED BY
PRESSURE TREATED (Inspection Agency Name)
08-09 IN ACCORDANCE WITH
VIANCE/ACQ PROCEDURES
(NER-643)
WOOD TREATMENT CO.
CITY, STATE

 ACQ 0.60
FOUNDATION USE
MONITORED BY
PRESSURE TREATED (Inspection Agency Name)
08-09 IN ACCORDANCE WITH
VIANCE/ACQ PROCEDURES
(NER-643)
WOOD TREATMENT CO.
CITY, STATE

 ACQ 0.25
ABOVE GROUND USE
MONITORED BY
PRESSURE TREATED (Inspection Agency Name)
08-09 IN ACCORDANCE WITH
VIANCE/ACQ PROCEDURES
(NER-643)
WOOD TREATMENT CO.
CITY, STATE



 ACQ 0.40
GROUND CONTACT USE
MONITORED BY
PRESSURE TREATED (Inspection Agency Name)
08-09 IN ACCORDANCE WITH
VIANCE/ACQ PROCEDURES
(NER-643)
WOOD TREATMENT CO.
CITY, STATE

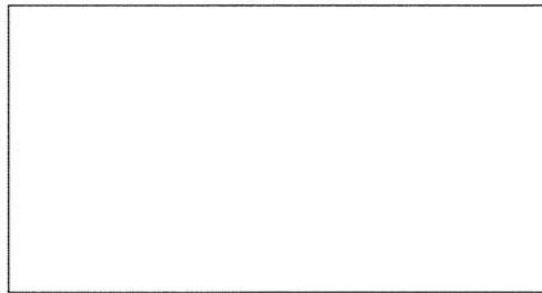







FIGURE 1—SAMPLE PRODUCT LABEL


ACQ 0.15
ABOVE GROUND USE
MONITORED BY
PRESSURE TREATED (Inspection Agency Name)
08-09 IN ACCORDANCE WITH
VIANCE/ACQ PROCEDURES
(NER-643)
WOOD TREATMENT CO.
CITY, STATE


ACQ 0.60
GROUND CONTACT USE
MONITORED BY
PRESSURE TREATED (Inspection Agency Name)
08-09 IN ACCORDANCE WITH
VIANCE/ACQ PROCEDURES
(NER-643)
WOOD TREATMENT CO.
CITY, STATE


ACQ 0.20
ABOVE GROUND USE
MONITORED BY
PRESSURE TREATED (Inspection Agency Name)
08-09 IN ACCORDANCE WITH
VIANCE/ACQ PROCEDURES
(NER-643)
WOOD TREATMENT CO.
CITY, STATE


ACQ 0.60
FOUNDATION USE
MONITORED BY
PRESSURE TREATED (Inspection Agency Name)
08-09 IN ACCORDANCE WITH
VIANCE/ACQ PROCEDURES
(NER-643)
WOOD TREATMENT CO.
CITY, STATE


ACQ 0.25
ABOVE GROUND USE
MONITORED BY
PRESSURE TREATED (Inspection Agency Name)
08-09 IN ACCORDANCE WITH
VIANCE/ACQ PROCEDURES
(NER-643)
WOOD TREATMENT CO.
CITY, STATE



ACQ 0.40
GROUND CONTACT USE
MONITORED BY
PRESSURE TREATED (Inspection Agency Name)
08-09 IN ACCORDANCE WITH
VIANCE/ACQ PROCEDURES
(NER-643)
WOOD TREATMENT CO.
CITY, STATE

FIGURE 1—SAMPLE PRODUCT LABEL (continued)