

NIST Weights and Measures Division

Marketplace Assessment – Metric Labeling on Packages in Retail Stores



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Metric Labeling on Packages in Retail Stores

Abstract: Use of metric units in United States consumer product labeling has a long history. Currently, the Fair Packaging and Labeling Act (FPLA) requires dual labeling, while products regulated by states under the Uniform Packaging and Labeling Regulation (UPLR) are permitted to display metric labeling¹. In an effort to characterize current U.S. marketplace labeling practices, the net quantity of contents statement labeling of at least 1137 packages was examined in 19 retail stores, including those that sell food, home and personal care products, hobby and arts and crafts products, automotive, hardware, office products and pet supplies.

The assessment found that retailers across the United States are selling both domestically packaged and imported products labeled with only metric units in the net quantity of content statement. Of those packages examined, 17 % declared the net quantity of contents in only metric units. Almost 57.5 % of those metric packages were found to be noncompliant with current FPLA dual labeling requirements. The majority of the parties responsible for manufacturing or distributing 61 % of the metric products were U.S. companies. Metric packages are present in the U.S. marketplace and consumer exposure to metric packaging is growing as demonstrated by their availability in a broad range of retail stores.

Introduction

Consumer product labeling practices in the United States has a long history of using and permitting metric units. The 1966 Fair Packaging and Labeling Act (FPLA)² required net quantity disclosures on packages be made in the customary inch-pound system of measurement. However, the implementing regulations adopted by Federal Trade Commission (FTC), the Food and Drug Administration (FDA), and the Uniform Packaging and Labeling Regulation (UPLR) also allowed metric units to be displayed. In 1992 Congress amended the FPLA to require net quantity disclosures on packages to appear in both metric and inch-pound units, which is known as “dual” labeling (Figure 1). A wide variety of consumer commodities fall under the FPLA (Appendix A).

In 1999 the National Conference on Weights and Measures (NCWM) amended the Uniform Packaging and Labeling Regulation (UPLR) to permit packages that are subject only to state regulation to display only metric units, known as “metric” labeling (Figure 1), which is consistent with the federal policy that the metric system is the preferred system of weights and measures for commerce in the United States (15 U.S.C. 205b).

¹ The term dual labeling refers to using both metric and inch-pound measurement units in a net quantity of contents statement. The term metric labeling refers to using only metric measurement units in a net quantity of contents statement.

² (15 U.S.C. §§ 1451-1461)

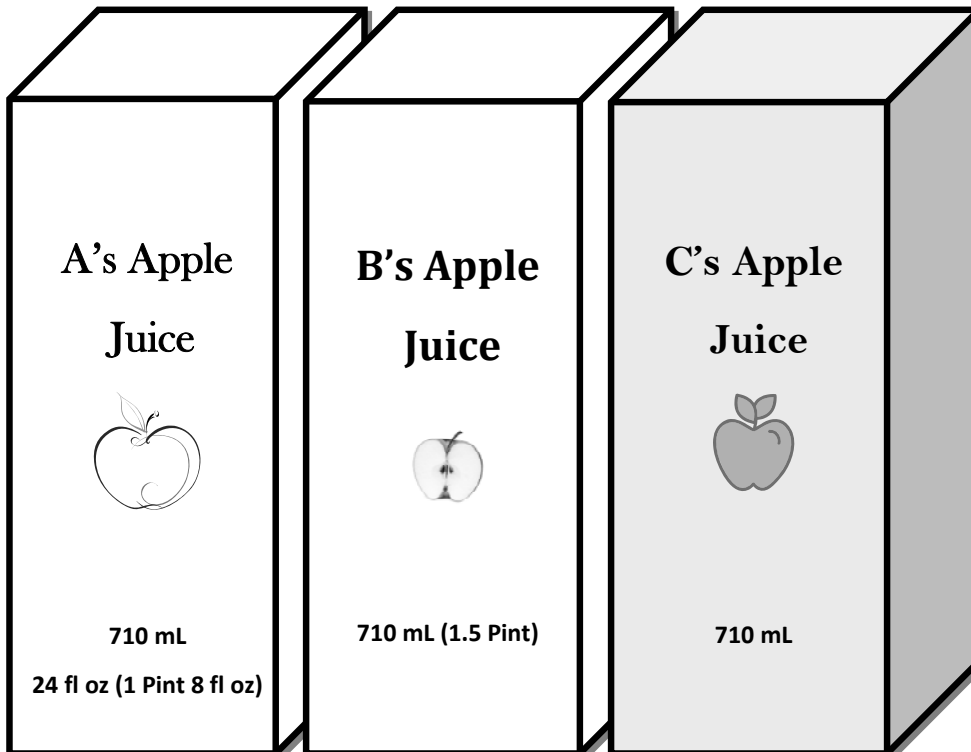


Figure 1 – Dual and Metric Packaging Examples. Juice A and B feature a dual net quantity of contents statement in the label, which is required under the current FPLA. Juice C features a metric label, which is currently permitted under the UPLR, but prohibited by the current FPLA. The proposed FPLA amendment would permit U.S. manufacturers to choose either dual or metric labeling for their products.

Metric units appearing on packages have proven to be informative and have helped many U.S. consumers learn to relate metric quantities to the equivalent inch-pound quantities. Consumers are able to review the net quantity of contents statement between dual and metric labeled products (**Figure 1**), to make simple and easy value comparisons using the metric value. Comparisons between multiple inch-pound values commonly found in net quantity of contents statements often involve mathematical calculations to make value comparisons (**Figure 1**). Metric labeling does not require specifically designed metric sizes, allowing current quantities found in the U.S. marketplace to be used. More on metric labeling and the proposed FPLA legislation is available from NIST³.

U.S. retailers purchase consumer goods manufactured in other countries, where metric labeling is dominant, and import them into the U.S. marketplace. Because both metric and inch-pound units are required by federal law and metric labeling is dominant on products outside the United States, this assessment expected:

- No metric labeled FPLA packages would be present in the U.S. marketplace.
- The majority of consumer package labels would be compliant with FPLA regulations, bearing dual unit net quantity statements.

³ See the Voluntary Metric Labeling whitepaper, which is available at <http://www.nist.gov/metric>.

- The majority of UPLR regulated packages would be compliant with regulations. A limited number of metric labeled UPLR products would be present.
- If metric labeled FPLA or UPLR packages were identified, the majority would have a Responsible Party from outside the United States.

Methodology

This marketplace assessment was conducted by National Institute of Standards and Technology (NIST) Weights and Measures Division (WMD) Laws and Metric Group staff between April 14, 2008, and September 4, 2008. The assessment covered a broad community of retail stores (19, listed in Appendix B) and sectors including food, home and personal care products, hobby and arts and crafts, automotive, hardware, office products and pet supplies. The manufacturer or packager was identified on each product by reviewing the declaration of responsibility. The measurement system used was determined by reviewing the product net quantity statement, often located in the lower 30 % of the primary display panel (PDP).

Observations

Metric labeled products are currently being manufactured and distributed within the U.S. retail marketplace. The assessment found that national and local retailers are selling both domestically packaged and imported products labeled with only metric units. Metric net quantity was declared in 17 % (193) of the products observed. Current FPLA dual label requirements were not used as mandated in 57.5 % (111) of those metric packages. U.S. companies were found to be responsible for manufacturing or distributing 61 % (118) of these metric products (Table 1). A high level of FPLA compliance with dual labeling requirements was found in the food sector.

Table 1

Assessment Results		
Total Packages	1137	100 %
Metric	193	17 %
Packages with Only Metric Units		
FPLA & UPLR	111	57.5 %
UPLR	80	41.5 %
EPA	2	1 %
Declaration of Responsibility of Metric Products		
USA	118	61 %
Other	48	25 %
None	27	14 %

Metric-Only Products Are Primarily Distributed by U.S. Corporations, Not Foreign Entities.

Other markets around the world require the solitary use of metric units on consumer products. Most dual labeled packages originate from the United States. Given that current federal law requires dual labeling on most packages, it was anticipated that metric products in the U.S. marketplace would be from foreign manufacturers or distributors, however the opposite was found. The majority of the packages with metric labeling were from U.S. companies (61 %, **Table 1**). The list of metric labeled products observed during this assessment is found in **Appendix C**.

Rates of Metric Labeling Vary in Different Retail Stores

Retailers, both small specialty stores and major national food chains, sell packages of domestic and imported foods and other products with only metric units (**Table 2**). Metric labels were observed in use on a wide variety of products currently sold in the U.S. marketplace. Examples of metric labels are found in **Appendix D**.

Table 2

Type of Store	Type of Products	Level of Metric-only
Regional Chain	Basic food products Store brands	Some
National Chain	Diverse products available Major brands	More
Local	Diverse Specialty or ethnic products	Most common or predominant

Dual Labeling Technology Available in Retail Stores

Under (a) and (b) of Section 11.32 of the Uniform Packaging and Labeling Regulation (UPLR, NIST HB 130) foods packaged at the retail store level are not required to have dual labeling. An exception permitting only inch-pound units was allowed to overcome the limitations of label printing technology. New labeling technology was observed being used in the U.S. marketplace that allows the inclusion of metric and inch-pound units on foods packaged at the retail store level.



Figure 2 - Dual labeling at a retail store level.

USDA Regulated Products

The assessment observed the net quantity of contents labeling practices from United States Department of Agriculture (USDA) inspected frozen and refrigerated pre-packaged food packages (e.g., dinners, breakfast, pizza, lasagna, and pasta meals). Currently, inch-pound units are mandatory and dual labeling is voluntary for these USDA products. It was anticipated that the majority of USDA inspected pre-packaged food would include net content containing inch-pound units exclusively. However, the marketplace has substantially adopted voluntary dual labeling (94.4 %, **Table 3**).

Table 3

USDA Regulated Products		
Total	750	100 %
Inch-pound	42	5.6 %
Dual	708	94.4 %
Metric	0	0 %

Conclusions

The long standing convention that the marketplace will determine when metric labeling is appropriate is becoming a reality. Some U.S. manufacturers are choosing to use metric labeling for their products, which is in conflict with the current FPLA. Metric labeling has emerged into the retail distribution supply chain without causing disruption to U.S. consumers and retailers. Consumers purchase packages that are labeled exclusively with metric units every day. Impacts appear to be minimal as metric labeled products are absorbed into normal retail functions. Metric packages are displayed alongside other dual labeled products and do not appear to interfere with normal retail operations, such as machinery, packaging and shipping containers, or shelving.

The assessment results show that there is a high level of compliance with dual labeling requirements in the food sector. There is a high level of voluntary dual labeling for meat and poultry products, especially products with other food components, for which metric unit use in the net quantity of contents statement is optional under federal meat and poultry labeling laws. Some retailers are using labeling technology that permits dual labeling for products packaged at the retail level. Expanding use of new technology will reduce and ultimately eliminate this historic labeling barrier from the U.S. marketplace.

The assessment revealed hundreds of technical violations of state and federal labeling requirements and regulations in the U.S. marketplace. Some violations include:

- Non English language use, which is required under all U.S. labeling laws and regulations;
- Labels bearing prohibited terms; and
- Absence of all required net quantity of contents information.

The assessment illustrates the need for the development of an aggressive information and educational program for both U.S. industry and regulators by the NIST WMD Laws and Metric Group.

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Appendix A. Commodities under the FPLA and Exclusions

Product	Agency	Dual Units Required	Metric Units Required	Metric Units Optional	Packages may have only Metric Units	Only Inch-Pound Units Required	Packages may have only Inch-Pound Units
Foods	FDA	Yes	Yes	No	No	No	No
Prescription Drugs	FDA	Either System of Measurement is Permitted	No	—	Yes	No	No
Over the Counter Drugs	FDA	No	It may be used to state pill or tablet strength	Yes	No	Yes	Yes
Cosmetics	FDA	No	No	Yes	No	Yes	Yes
Meat & Poultry (not FPLA)	USDA	No	No	Yes	No	Yes	Yes
Tobacco & Beer (not FPLA)	Treasury	No	No	Yes	No	Yes	Yes
Wine & Distilled Spirits (not FPLA)	Treasury	No	Yes	—	Yes	No	No
Non-Food Consumer Commodities	FTC	Yes	Yes	—	No	No	No
Non-Food Non-Consumer Commodities (not FPLA)	States & UPLR	No	Yes	—	Yes	No	No
Pesticides (not FPLA)	EPA	No	No	Yes	No	Yes	Yes

Appendix B. List of Retail Stores

Store Name		Location
1	Wal-Mart	Germantown, MD
2	Safeway	Germantown, MD
3	Michaels	Germantown, MD
4	World Market	Germantown, MD
5	Shoppers Food Warehouse	Germantown, MD
6	Hy-Vee Supermarkets	Topeka, KS
7	Hobby Lobby	Topeka, KS
8	Pet Smart	Gaithersburg, MD
9	Lowe's	Gaithersburg, MD
10	Sally Beauty Supply	Gaithersburg, MD
11	Caribbean Corner	Gaithersburg, MD
12	Harbor Freight	Gaithersburg, MD
13	Sports Authority	Gaithersburg, MD
14	Latino Market	Gaithersburg, MD
15	Radio Shack	Gaithersburg, MD
16	Office Depot	Germantown, MD
17	Russian Market	Germantown, MD
18	H.E.B.	Brownsville, TX
19	Taste of Europe	Gaithersburg MD

Appendix C. Metric Products

Store	Product Description	1=FPLA & UPLR 2=UPLR 3=EPA	Declaration of Responsibility	1=USA 2=Other	Net Quantity Statement or "NONE" ⁴
Wal-Mart	Touring Grip XL	2	Unique Sports Products Alpharetta, GA	1	3XL Grip (99 cm x 29 mm)
Wal-Mart	Razor edged cutter blade	2	Fiskars Craft Madison, WI	1	60 mm
Wal-Mart	45 mm Straight Rotary Blade	2	Prym-Dritz Spartanburg, SC	1	45 mm
Wal-Mart	Fashion Accessories Metal Pillow (necklaces)	2	Cousin Corporation of America Calumet City, IL	1	16 pc 4 x 6 mm
Wal-Mart	Ignite-O Fire Starter Packets	2	Joseph Enterprises, Inc San Francisco, CA 94104 www.ignite-o.com	1	2 packets 45 g
Wal-Mart	Creative Hand 40 foams sheets	2	Fibre-Craft Materials Niles, IL	1	40 sheets 14 cm x 21.5 cm
Wal-Mart	Perler Board activity board	2	Perler a division of Dimensions Reading, PA	1	Net wt 74 g
Wal-Mart	Bait Fresh	2	USP, LLC Lufkin, TX www.bassmedics.com	1	net wt 160 grams
Wal-Mart	Danskin Now Premium Body Ball	2	Danskin, Inc. New York, NY	1	64 cm
Wal-Mart	Daler Rowney Oil Starter Color Paint Set	2	Daler Rowney 2 Corporate Drive Cranbury, NJ	1	contains 6 x 22 ml tubes
Wal-Mart	Crosman Powerlet CO ² cartridges	2	Crosman 7629 Routes 5 & 20 East Bloomfield, NY 14443	1	12 g
Wal-Mart	Crosman CO ² paintball power source	2	Crosman.com Crosman Corporation 7629 Route 5 & 20 E. Bloomfield, NY 14443	1	88 g

⁴ Net quantities are stated as indicated on the package label.

Store	Product Description	1=FPLA & UPLR 2=UPLR 3=EPA	Declaration of Responsibility	1=USA 2=Other	Net Quantity Statement or "NONE"⁴
Wal-Mart	Fun with Beads faceted beads	2	The Beadery PO Box 178 Hope Valley, RI	1	100 g 6 mm + 8 mm
Wal-Mart	Sweet Forever Mini Heart Spangles	2	Sulyn Industries Coral Springs, FL 33065	1	12 gms
Safeway	Ducal Frijoles Negro Volteados	1	Goya Foods Secaucus, NJ	1	peso neto 823 g
Safeway	Scwartau Blueberry Preserve	1	Schwarauer Werke Bad Schwartau Germany	2	340 g
Safeway	B'loonies Blow colorful plastic balloons	2	JA-RU Jacksonville, FL 32207	1	20 grams (per bottle only) 2 in pack
Michaels	11,000 Activity Beads	2	Dimensions 1801 N 12th Street Reading, PA	1	net wt 695 g
Michaels	Garden Craft Terra Cotta Monkey	2	Uchida of America Torrance, CA	1	15 mm
Michaels	Soft Oil Color	2	Martin / Weber Co Philadelphia, PA	1	37 ml
Michaels	Origami	2	Aitoh South San Francisco, CA	1	150 mm x 150 mm
Michaels	Before and after mints peppermint and cinnamon	1	Before & After LLC Studio City, CA	1	net wt. 16.5 g
Michaels	Pom Poms	2	Westrim Crafts a Division of Creativity, Inc. Van Nuys, CA 91406	1	5 mm 100 pc
Michaels	Chenille Pipe	2	Westrim Crafts Van Nuys, CA 91406	1	15 MM x 30.5 CM 12 pcs
Michaels	Holographic Glitter Glue	2	Sulyn Industries Carol Springs, FL 33065	1	5 colors 20 ml. per color 100 ml total
Michaels	Mini Glitter Shapes	2	Sulyn Industries Carol Springs, FL 33065	1	4 styles 4.5 gms per style - 18 gms
World Market	Duerrs' Ginger Jam	1	F. Duerr & Sons Manchester England	2	42.5 g
World Market	Nestle Kit Cat Chunky	1	Nestle, Main Rd, York, UK	2	50 g
World Market	Aria Extra Virgin Olive Oil	1	Aralia Imports Boston, MA	1	500 ml e

Store	Product Description	1=FPLA & UPLR 2=UPLR 3=EPA	Declaration of Responsibility	1=USA 2=Other	Net Quantity Statement or "NONE"⁴
World Market	The Original Martini Mix- Dirty Sue	1	www.DirtySue.com	0	375 ml
World Market	Ritter Sport Alpine Milk Chocolate	1	Alfred Ritter GmbH & Co., D71108 Waldenbuch, Germany	2	250g e
Shoppers Food	Mug	2	Ladi Perth Amboy, NJ	1	9cm
Shoppers Food	Nivea Cream	1	BDF Mexico, SA Poniente 116 No 509 CP 02300	2	400 ml sticker on back with 400ml/13.5fl oz
Shoppers Food	La Sirena Chunk light Tuna in Water	1	Distributed by Iberia Foods Brooklyn, NY	1	peso neto 165 grams
Shoppers Food	Valentina Salsa Picante	1	Made in Mexico Salsa Tamazula	0	cont net 370 ml
Shoppers Food	Hinds Lotion	1	Glaxo Kline Mexico	2	Cont Net. 420 ml
Shoppers Food	Massac Pain relieving ointment	1	Creative Medical Corp Cidra, PR	2	Net Wt 90 g
Hy-Vee	Pampers Clean & Go 60 wipes	1	Procter & Gamble Cincinnati, OH 45202	1	17.8 cm X 17.8 cm
Hy-Vee	Pampers Kandoo 100 wipes	1	Procter & Gamble Cincinnati, OH 45202	1	17.1 cm X 10.6 cm
Hobby Lobby	Fimo Soft Clay Mold	2	92318 Neumarkt, Germany	2	56g
Hobby Lobby	Flake Glitter	2	Glitterex Corp Cranford, NJ 07016	1	.21g
Hobby Lobby	Acrylic Beads	2	Crafts Etc. 7717 SW 44th Oklahoma City, OK 73179	1	32 X 38mm 2 pieces
Hobby Lobby	Field Grass Natural Straw	2	Woodland Scenics PO Box 98 Linn Creek, MO 65062	1	8gr
Hobby Lobby	Bead Treasure Czech Glass Beads	2	Crafts Etc. 7717 SW 44th Oklahoma City, OK 73179	1	no count "approx 18g"
Hobby Lobby	Lead Pointer Mechanical Pencil	2	C-Thru Ruler Company Bloomfield, CT 06002	1	2mm
Hobby Lobby	Landscape Oil Color Midnight Black	2	Martin Weber Co Philadelphia, PA 19154	1	37ml
Hobby Lobby	Permanent Masking Water Colour	2	Winsor Newton Landon HA35RH Tel (+44) 2084243200	2	75ml

Store	Product Description	1=FPLA & UPLR 2=UPLR 3=EPA	Declaration of Responsibility	1=USA 2=Other	Net Quantity Statement or "NONE"⁴
Hobby Lobby	Matte Gel Medium (polymer emulsion)	2	Liquitex Artist Materials PO Box 246 Piscataway, NJ 08855	1	473ml
Hobby Lobby	Calligraphy Pen Gold	2	Uchida of America Corp Torrance, CA	1	2mm tip
Hobby Lobby	Designer Baby Knit Set	2	NONE (only said made in China)	0	6 pars/set 3.5mm 4mm 4.5mm5mm 5.5mm 6mm
Hobby Lobby	Glass Seed Beads (for needlework)	2	Mill Hill Wichelt Imports Inc Stoddard, WI 54658	1	4.54grams no count
Hobby Lobby	2 Sew On Snaps Nickel Plated Brass	2	Prym Consumer USA Inc Spartanburg, SC 29304	1	30mm
Hobby Lobby	Omega Hilo 100% Nylon	2	Omega Distributor DeHilos Callejon San Antonio Adad Mexico 06820 Tel 55-22-86-60	2	275m
Pet Smart	Purr Scriptions Squeeze on	2	Sergeants Pet Care Product Omaha, NE 68130	1	three 0.7 ml
Pet Smart	R7 Ear Powder	1	Gimborn Pet Specialists 4280 Northeast Expressway Atlanta, GA 30340	1	12grams
Pet Smart	Ant Guard (for hummingbird feeders)	2	Woodstream Corp 69 North Locust Street Lititz, PA	1	32 Gr
Pet Smart	Ick Clear	2	United Pet Group Inc. dba Jungle Laboratories Corporation Box 630 Cibolo, TX 78108-0630	1	8 tablets 39 g
Pet Smart	Ammonia Clear	2	United Pet Group Inc. dba Jungle Laboratories Corporation Box 630 Cibolo, TX 78108-0630	1	8 tablets 39 g
Pet Smart	Water Clear	2	United Pet Group Inc. dba Jungle Laboratories Corporation Box 630 Cibolo, TX 78108-0630	1	8 tablets 39 g

Store	Product Description	1=FPLA & UPLR 2=UPLR 3=EPA	Declaration of Responsibility	1=USA 2=Other	Net Quantity Statement or "NONE"⁴
Pet Smart	No More Algae	2	United Pet Group Inc. dba Jungle Laboratories Corporation Box 630 Cibolo, TX 78108-0630	1	8 tablets 39 g
Pet Smart	Lifeguard Therapeutic Treatment for Marine Fish	2	Aquarium Systems, Inc Mentor, OH 44060 USA	1	46.4 g
Pet Smart	Premium Carbon- Ammonia Neutralizing Blend	2	Marineland Aquarium Products Cincinnati, OH 45255	1	900 mL Note- store unit pricing stated 25 oz
Pet Smart	Premium Activated Carbon	2	Marineland Aquarium Products Cincinnati, OH 45255	1	1.87 L Note- store unit pricing stated 36 oz
Pet Smart	Micro Filtration + Filstar Xp	2	Rena, Aquarium Pharmaceuticals Inc. PO Box 218 50 E. Hamilton Street Chalfont, PA 18914-0218	1	160 X 160 X 11 mm X 2
Pet Smart	Repta-Aid Critical Care Formula Insectivore/Carnivor e Emergency Aid	2	Fluker Laboratories a Division of Fluker Farms Baton Rouge, LA	1	50 grams
Pet Smart	Orabac Naturally Produced Food Additive Daily Nutritional Suppliment	2	Virbac AH, Inc. Consumer Brands Division Fort Worth, TX 76161	1	15 g
Lowes	Lubri Con di Electric	2	Arnold P.O. Box 703 Shelby, OH	1	net wt 4 mL
Lowes	Mosquito Octenol Lure	3	Kaz, Inc 4411 Route 9 Hudson, NY	1	3.72 grams
Lowes	Tomcat Mole Killer	3	Motomco Madison, WI 53704	1	net wt 20 g
Lowes	Shellac Base Primer- Sealer Stain Killer B-I-N	2	Zinsser an RPM Company Zinsser Co. Inc 173 Belmont Dr. Somerset, NJ 08875	1	369 g

Store	Product Description	1=FPLA & UPLR 2=UPLR 3=EPA	Declaration of Responsibility	1=USA 2=Other	Net Quantity Statement or "NONE"⁴
Lowes	Powdered Graphite Lubricant	2	The Hillman Group Cincinnati, OH 45231	1	3 grams
Lowes	Harbor Breeze scented refill for fan & lighting pull chains Citrus Splash	1	Northwell International, Inc. 11704 E. Washington Blvd Whittier, CA 90606	1	8 ML
Lowes	Harbor Breeze scented refill for fan & lighting pull chains Ocean Mist	1	Northwell International, Inc. 11704 E. Washington Blvd Whittier, CA 90606	1	8 ML
Sally Beauty Supply	Magic Health Nick Relief	1	Apothecary Product Minneapolis, MN	2	3 gm
Sally Beauty Supply	Nail Tips	2	NONE	0	sizes 1-19 10 of each 2gm. Glue
Caribbean Corner	Suavitel Baby (detergent)	1	Colgate Palmolive Presa La Angostura Mexico	2	cont net 1 L
Caribbean Corner	Rosita Shampoo	1	Colgate Palmolive Presa La Angostura Mexico	2	cont net 1 L
Caribbean Corner	Inca Cusco (chocolate bar)	1	Belmont International Trading Miami, FL	1	peso neto 90 g
Caribbean Corner	Dulce De Nance Candy	1	Imported/Distributor 1325 5th Street, NE Washington, DC 20002	1	(note: on back panel) 65 gramos
Caribbean Corner	Espresso café Bustelo	1	Bustelo Coffee Div. of Rowland Office Miami, FL	1	Net wt 100 g
Caribbean Corner	Camay Clasico (bar soap)	1	Procter and Gamble International SA Loma, FL	1	200 g
Caribbean Corner	Fixion (hair gel)	1	Colgate Palmolive Presa La Angostura Mexico	2	cont net 400 g
Caribbean Corner	Caprice Ultra (hair Spray)	1	Secobasa Grocery LLC Product of Mexico	2	cont net 285 g
Caribbean Corner	Sedal (curly hair crème)	1	Unilever - imported by Pamex Forestville, MD	1	cont neto 300 ml

Store	Product Description	1=FPLA & UPLR 2=UPLR 3=EPA	Declaration of Responsibility	1=USA 2=Other	Net Quantity Statement or "NONE"⁴
Caribbean Corner	Palmolive Naturals (bar soap)	1	www.colgatge.com.mx	0	cont net 200 g
Caribbean Corner	Churrumais con Limoncito	1	Sab-ritas de R.L. deCV Norte 45 No. 740 Coindvalero Mexico	2	cont net 175 g
Caribbean Corner	Sabritones Chile lime chips	1	Sab-ritas de R.L. deCV Norte 45 No. 740 Coindvalero Mexico	2	cont net 175 g
Caribbean Corner	Bolda Zurit (tea)	1	ASA Alimentos S.A.Lima Peru	2	25 filtrantes X 1g
Caribbean Corner	Therbal Limon Tea	1	Enpacodar Therbal Alamos 03400 Mexico	2	25g
Caribbean Corner	Belmont Natural Products Emoliente (grain supplements)	1	Belmont International Trading Miami, FL	1	200g
Caribbean Corner	ABC Fruit Bar	1	Tsang Lin Industries No 20 Industrial Park Taichung Taiwan	2	8.5ml X 8 pieces
Caribbean Corner	Tabuloso (Liquid Potpourri)	1	Colgate Palmolive Col Irrigacion Mexico	2	1 Litro
Caribbean Corner	Ariel Downy Oxide (Spanish)	1	Honduras	2	450g
Caribbean Corner	Heinz Cream Salad Cream	1	Heinz Africa & Middle East FZE PO Box 61109 Jebel, Dubai, UAE	2	285 g
Caribbean Corner	Birds Custard Powder	1	Birds UK	2	300 g
Caribbean Corner	Pates Sim Langue d'oiseau (Rice) (non English)	1	Gribi & Sons 301-693-2667 MD, USA	1	500 g
Caribbean Corner	Maggi Seasoning Cube	1	Nestle Nigeria PLC 22/24 Industry Avenue Ilupeju	2	100 count 400 g

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Caribbean Corner	Lizano Salsa	1	Unilever de Centroamerica, S.A. del Cruce de San Andonio de Belen	2	700 ml
Caribbean Corner	Valentina Salsa Picante	1	Salsa Tamazula S.A. DE C.V. Calle 22 No 2583 Zona Industrial C.P. 44940 Guadalajara Mexico	2	370 ml
Harbor Freight	20 pcs pocket set	2	distributed exclusively by: Harbor Freight Tools www.harborfreight.com	1	5 mm x 17.2 mm
Harbor Freight	10 pc pocket set	2	distributed exclusively by: Harbor Freight Tools www.harborfreight.com	1	size 5,6,7,8,9,10,11,12 ,13, 14 mm
Harbor Freight	H2 hold wet dry flexible	2	ITW Performance Riviera Beach, FL	1	net 25 ml
Harbor Freight	Ryno Weld Power Glue	2	AGS Company Muskegon, MI 49443	1	6 grams
Harbor Freight	Devcon 5 Minute Epoxy	2	ITW Performance Riviera Beach, FL	1	net vol. 25 ml
Harbor Freight	Magnetic Socket	2	distributed exclusively by: Harbor Freight Tools www.harborfreight.com	1	13, 14, 16, 17 and 19 mm
Harbor Freight	Extra Strong Super Glue	2	Made in China	0	net .2 g
Harbor Freight	Aquapel Glass Treatment	2	PPG Industries, Inc. Pittsburg, PA 15272	1	8 ml.
Sports Authority	Tourna Grip	2	849McFarland Parkway Alpharetta, GA 30004	1	3 grips (99 cm x 25 mm)
Sports Authority	Table Tennis Cover	2	Kettler Freizeitmarke	0	80 cm x 160 cm x 170 cm
Sports Authority	Yoga Mat	2	Nike One Bowman Drive Beaverton, OR	1	168 cm x 61 cm x 5 mm
Sports Authority	Body Fit Fitness Ball	2	Sports Authority1050 West Hamden Avenue, Englewood, CO	1	75 cm
Sports Authority	Leather Cue Tips and Cement	2	Escalade Sports 817 Maxwell Avenue Evansville, IN	1	(12) 12mm and (12) 13 mm glue
Sports Authority	Yoga Mat	2	Nike One Bowman Drive Beaverton, OR	1	168cm X 61cm X 3m

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Sports Authority	Anti Burst Fitness Ball	2	TSA Corporate Service 1050 West Hampden Ave Englewood, CO 80110	1	65cm
Sports Authority	Outdoor Performance [inline skate wheels]	2	Hyper Wheels 12801 Carmenita Rd. Santa Fe Springs, CA 90670	1	76 mm
Sports Authority	Bottle holder	2	Zero Degrees Pint Size Productions, Inc. Crystal Lake, IL 60014	1	1 LITER
Sports Authority	Micro filter for drinking water	2	Katadyn North America 9850 51st Ave N. Minneapolis, MN 55442	1	1 - 0.3 micron pleated glasfibre filter cartridge
Sports Authority	Triple Action Pepper Defense Spray Tear Gas UV Dye	2	Mace Security International 160 Benmont Avenue Bennington, VT 05201	1	17 grams
Latino Market	culcafe	1	Colafe calle 8 Sur Columbia RSA 1515801	2	content ido net 380 g
Latino Market	Café Bustelo Instant Coffee	1	Bustelo Coffee Miami, FL	1	200 g
Latino Market	Heinz Salad Cream	1	Heinz Africa & Middle East P.O. Box 61109 Product of Holland	2	e 285 g
Latino Market	Heinz Vegetable Salad	1	Heinz Co., Ltd. Hayes, Middx UB4 8AL	2	e 195 g
Latino Market	Butter Toffees	1	Arcor USA 550 Biltmore Way Coral Gables, FL	1	150 g
Latino Market	EL TIGRE FRESH PRODUCE Sweet Popcorn	1	Maryland Wholesale Produce Market Unit 45 Building B Jessup, MD 20794	1	.20 gram
Latino Market	Lemon Nature Scents Air Freshener item No: 44721	1	NONE	0	70 g [contains two units, but also marked 70 g on each can]
Latino Market	La Morena Chiles Chilpotles	1	Monterey Mexico	2	380g

Store	Product Description	1=FPLA & UPLR 2=UPLR 3=EPA	Declaration of Responsibility	1=USA 2=Other	Net Quantity Statement or "NONE"⁴
Radio Shack	Thermal Compound #CR Cermaique	2	Termaltake www.termaltakeusa.com made in USA	1	2.5 grams (on tube) 3.5 grams (on box)
Radio Shack	Thermal Compound #AS Artic Silver 5	2	Termaltake www.termaltakeusa.com made in USA	1	3.5 grams (box and tube match)
Office Depot	Uni-Ball Signo (pens)	2	Newell Rubbermaid Sanford 2707 Butterfield Oakbrook, IL	1	.07 mm
Office Depot	Liquid Paper 4 Count	2	Liquid Paper Oakbrook, IL	1	22 mL
Office Depot	Liquid Paper Dryline	2	Liquid Paper Oakbrook, IL	1	5 mm Wide x 8.5 mm Long
Office Depot	Clean Doctor Air Blaster CO ₂	2	Digital Innovations Assembled in USA	0	16 g [on back]
Office Depot	Uni-Ball Signo Med. Gel Black (pens)	2	Sanford LP a Division of Rubbermaid Oakbrook, IL 60523	1	0.7 MM 4 black [on back]
Russian Market	Dill Pickles	1	Zip International 150 Raritan Court Edison, NJ	1	920 g
Russian Market	Tomatoes	1	Mega Food International Northwest Avenue Philadelphia, PA	1	920 g
Russian Market	Canned Pickles	1	Eastern Star Distribution	0	520 g
Russian Market	Fruit Wafers	1	NONE	0	100 g - 5 %
Russian Market	Tiramisu	1	International Gold Star Trading Brooklyn, NY	1	500 g e
Russian Market	Vanilla Bisquit Cookies	1	www.odessalux.com	0	200 g
Russian Market	Classic Marshmallow	1	Threeline Imports 53 Street Brooklyn, NY	1	500 g

Store	Product Description	1=FPLA & UPLR 2=UPLR 3=EPA	Declaration of Responsibility	1=USA 2=Other	Net Quantity Statement or "NONE"⁴
Russian Market	Peeled Barley	1	Co, Resurs, Ltd. Province Russia	2	4 x 100 g
Russian Market	Mushroom Soup	1	Zip International 150 Raritan Court Edison, NJ	1	720 g
Russian Market	Raspberry Preserve	1	Darbo, Inc. 6135 Stanstyo Austria	2	e 22,6 oz
Russian Market	Candied Orange	1	Threeline Imports 53 Street Brooklyn, NY	1	265 g
Russian Market	Impra Pure Ceylon Tea English Breakfast	1	ZIP International Group LLC 160 Raritan Center Parkway Unit #6 Edison, NJ 08837	1	100 tea bags of 2 g Net 200 g
Russian Market	Ahmad Tea Ceylon Tea	1	Ahmad Tea Ltd. Winchester Chandlers Ford, Hants S053 2PZ, England	2	500 g
Russian Market	Toast w/nuts	1	ZIP International Group LLC 160 Raritan Center Parkway Unit #6 Edison, NJ 08837	1	200 g
Russian Market	Sooshka	1	Interpage International 3539 Shore Parkway #A2 Brooklyn, NY 11235	1	400 g
Russian Market	Instant Herbal Baby Drink	1	Galil Importing Corp Syosset, NY 11791	1	250 gr
Russian Market	Waffle rolls	1	Interpage International 14A 53rd St, Brooklyn, NY 11232	1	300 g
Russian Market	Cookies	1	Desly International Corp 242 47th Street Brooklyn, NY 11220	1	500 g
Russian Market	Black Currant Syrup	1	Adria Imports, Inc. Maspeth, NY 11378	1	33.8 Fl. oz. (1 Qt. 1.8 oz)
Russian Market	Jacobs Monarch [instant coffee; in Russian]	1	Kraft Foods Deutschland Bremen, Germany	2	100 g

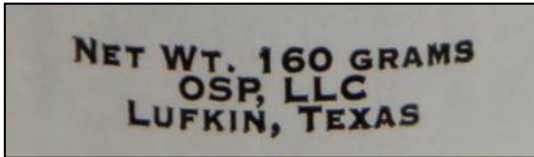
Store	Product Description	1=FPLA & UPLR 2=UPLR 3=EPA	Declaration of Responsibility	1=USA 2=Other	Net Quantity Statement or "NONE"⁴
Russian Market	Prince Polo Chocolate Cream Wafer	1	Kraft Food Oddzial, Cieszyn	2	36g
Russian Market	Kinder Chocolate Milk Wafer (in Russian)	1	In Russian	0	42g
Russian Market	Carrot Apple Juice	1	Product of Ukraine	2	200mu (Russian)
Russian Market	Strawberry Biscuit Wafers (in Russian)	1	In Russian	0	200r
Russian Market	78 % Dark Chocolate	1	In Russian	0	70G/r
Russian Market	Impra Lemon Tea Bags	1	Edison Kosher foods 160 Raritan Center Parkway Edison, NJ 08837	1	2g X 25 bags
Russian Market	Black Currant	1	Astra House LLC	0	450g
Russian Market	Red Current (in Russian)	1	In Russian	0	450r (+/- 3%)
Russian Market	Croissant Dough (in Russian)	1	In Russian	0	500r 500g
Russian Market	Whole Anchovy	1	Kiadeshoimen Seafood AB	0	600g
Russian Market	Smoked Cod Liver	1	DK-3730 Nexoe Denmark	2	120g
Russian Market	Octopus (in Russian)	1	In Russian	0	240r (240g)
Russian Market	Mayonnaise (in Russian)	1	In Russian	0	500mu (500ml)
Russian Market	Prigat Peach Nectar (in Russian)	1	In Russian	0	330ml

Store	Product Description	1=FPLA & UPLR 2=UPLR 3=EPA	Declaration of Responsibility	1=USA 2=Other	Net Quantity Statement or "NONE"⁴
H.E.B.	Tasso's Walnut's And Honey (improved from Greece)	1	Tasso Enterprise Oakbrook, IL	1	250 g
H.E.B.	Kohinoor Rice & Curry	1	Kohinoor Foods 58 Northfield Ave Edison, NJ	1	350 g
H.E.B.	Newtro Jabon (soap)	1	Laboratorios Grisi 03100 Mexico D.F.	2	100 g
Taste of Europe	Chocolate Covered Cherries (non English)	1	Kranyi Oktyabar NY 11231	1	250g
Taste of Europe	Cream Cookie Butter (non English)	1	Non English	0	250r
Taste of Europe	Impra Tea Strawberry	1	Edison Kosher Foods Edison, NJ 08837	1	50g
Taste of Europe	Jasmine Green Tea	1	Zip International Edison, NJ	1	200g
Taste of Europe	Sweet Corn	1	Non English	0	340g/grams/r drained weight 285g/grams/r
Taste of Europe	Jacobs Coffee	1	Kraft Bremen, Germany	2	100g
Taste of Europe	Le Caffè Mocha	1	B & B International NY, USA	1	200g
Taste of Europe	Roasted Peppers (jar) (non English)	1	Non English	2	450r
Taste of Europe	Canned Pickles (non English)	1	Product of Israel Israeli Co Brooklyn, NY	1	540rp. 320 rp
Taste of Europe	Red Whortleberry (drink)	1	Moscow Russia	2	1 Le
Taste of Europe	Peanut Wafer Opexoble	1	Krasy Oktyabar	1	90g

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Taste of Europe	French Mayonnaise (non English)	1	Non English	2	260r
Taste of Europe	Dainava Mineralized Drinking Water	1	Interpage International Shore Parkway Brooklyn, NY	1	1,5 L
Taste of Europe	Cookies	1	Hanke & Beifuss Oshabruch	2	400g
Taste of Europe	Vanilla Toast	1	Zip International Edison, NJ	1	200g
Taste of Europe	Chocolate Wafers (not in english)	1	Non English	0	500r
Taste of Europe	Sour Pitted Cherries	1	Milano Com	0	450g
Taste of Europe	Currants (non English)	1	Astra House	2	450g
Taste of Europe	Horshradish Chrzan	1	Brooklyn Imports Carlstadt, NJ 07072	1	290g
Taste of Europe	Suiests (butter)	1	Latvija	2	200g
Taste of Europe	Macjo butter	1	Non English	2	200r
Taste of Europe	Knorr Soup Mix (non English)	1	Unilever Polka SA Warszawa	2	18g
Taste of Europe	Milora Vegetable Oil (non English)	1	Non English	0	1 Litre

Appendix D. Metric Label Examples

Net Quantity – Mass



Wal-Mart (Sport Fishing Bait)



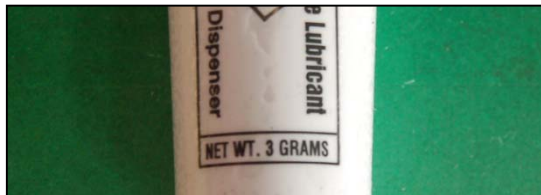
Wal-Mart (Craft Activity Board)



Wal-Mart (Paint Gun Propellant)



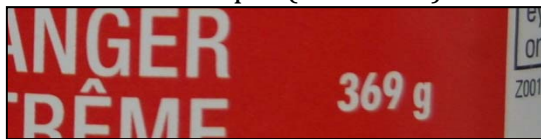
Wal-Mart (Craft Beads)



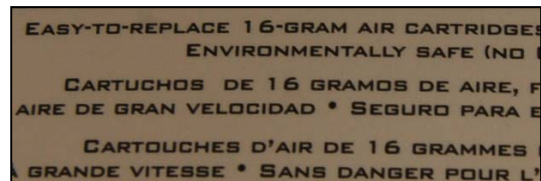
Home Depot (Lubricant)



Shoppers (Moisturizer)



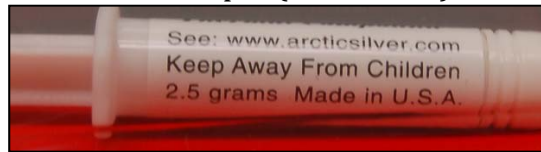
Home Depot (Paint Primer-Sealer)



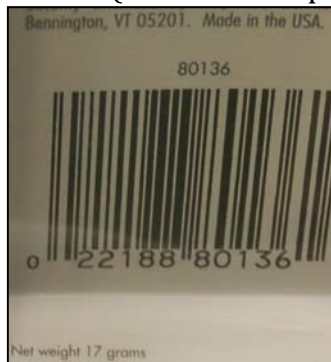
Office Depot (Canned Air)



Radio Shack (Thermal Compound)

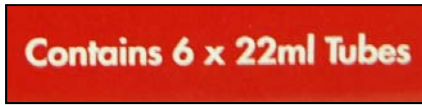


Radio Shack (Thermal Compound)



Sports Authority (Mace)

Net Quantity - Volume



Wal-Mart (Craft Oil Paints)



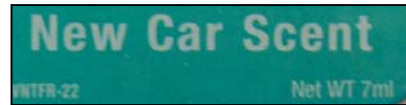
Office Depot (Correction Fluid)



Harbor Freight



Harbor Freight (Adhesive)



Wal-Mart (Air Freshener)



Sports Authority (Adhesive)



Harbor Freight (Adhesive)