# Inbound Materials and Parts Identification Label Standard

PROCEDURE # 40-0011

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# **Inbound Materials and Parts Identification Label Standard**

**Approved by:** Materials Manager

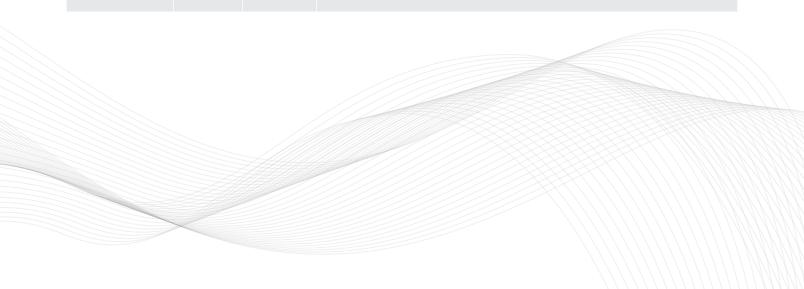
**Approved by:** Purchasing Director

Approved by: Quality Director

Approved by: Quality Systems Director

### **REVISIONS**

REVISION LETTER	CO#	DATE	DESCRIPTION
Released	103136	12/11/17	Initial issue.



### **Incoming Material/Part Identification Label Standards**

This document contains minimum specifications for barcode labels used on material to be received at Flexfab LLC facilities from suppliers. It is the responsibility of each supplier to provide Inbound Material/Part Identification Labels that meet these specifications, in addition to all other specifications required under any applicable law or regulation.

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### **Preface**

This Version 1.0 of the Flexfab LLC Inbound Material/Part Identification Label Standards was developed to clarify our label requirements to our suppliers. Flexfab LLC reserves the right to revise or update this document at any time. Suppliers will comply to the revision that is on the Flexfab website at the time of the Purchase Order.

All linear barcode formats should be Code 128 and all 2D barcode formats should be PDF417. Included in this document you will find "quick start" sheets with overviews of the specifications required for each type of label and to aid in label development.

Flexfab LLC discourages placing data on Inbound Material/Part Identification Labels other than as described herein unless additional data is otherwise required by applicable state, federal or international laws or regulations (such as lot traceability, health and safety information or environmental data). It is the responsibility of the supplier to provide Inbound Material/Part Identification Labels that meet the specifications described herein as well as any specifications required by any applicable laws or regulations.

For further information on the Flexfab LLC Inbound Material/Parts Identification Label Standards, contact the Flexfab LLC Purchasing Department by dialing 1-269-945-3533 or by emailing to Inbound.Material.Label@flexfab.com.

### 1 Introduction

### a. Purpose

This Inbound Material/Part Identification Label Standards document provides guidelines for the printing and placement of Inbound Material/Part Identification Labels. These labels are designed to improve productivity by allowing effective and efficient capture of data for production counts, warehouse input/output, cycle counting, generation of shipping documents, receiving and other inventory controls. Adherence to these specifications for labels will reduce labor costs, improve data accuracy and increase systems value.

**Note:** All figures are for illustrative purposes only and may not be to scale or meet barcode print quality standards.

### b. Hardware and Software

It is the responsibility of the supplier to procure label creation software capable of producing labels that comply with the standards described herein. There are many barcode hardware and software packages available. Some software packages are designed with industry standards built in. Consult the user documentation of the barcode software vendor for information on the software settings to produce symbols to correct specification.

If evaluating software and hardware for purchase, have the vendor create a barcode label for your evaluation. Evaluating a barcode sample before purchasing the equipment will help to ensure the equipment is capable of producing barcodes that meet applicable industry print quality standards.

### c. Sample Label Approval

Whether labels are purchased or produced, they will not be in compliance with this document until they have been approved by Flexfab LLC, and should not be used on actual shipments until approval is communicated. Samples submitted for approval must be made using the same software, hardware and label paper that will be used to produce the labels and must contain actual Flexfab LLC data.

Certain situations require extra protection for labels such as laminating or placing the label in a clear plastic envelope. If extra protection is required, the sample must be in the protective covering that will be used.

Unless otherwise instructed, labels sent to Flexfab LLC for approval should be addressed to:

Flexfab LLC ATTN: Purchasing Inbound Material Labels 1699 West M-43 Highway Hastings MI 49058

In addition to the label sample(s), include the supplier's name and contact information where feedback should be directed (email address preferred). Sample barcode labels will be evaluated based on the criteria explained in this document.

### 2 Definitions

Terms used in this document have precise meanings, which are listed below.

### Item

A single part or material purchased, manufactured and/or distributed.

#### Label

A card, strip of paper, etc. marked and attached to an object to convey information.

### Inbound Material/Part Identification Label

A single pack, master or mixed load label used to identify the contents of shipping pack.

### 3 General Information

### a. Size and Material

The size of the label is to be determined by a combination of the data requirements and the printing methodology used. A label 4.0 inches (102 mm) high and 6.5 inches (164 mm) wide should be large enough to handle all known conditions.

- i. The label paper must be white in color with black printing.
- ii. The paper and ink or ribbon must be of proper carbon content to insure passing infrared testing at 630-680 nanometers.
- iii. Adhesive types can be pressure sensitive or dry gummed as long as adherence to the package substrate is assured and application is wrinkle-free.

### b. Types of Labels

A <u>Single Pack Label</u> is required to identify a single pack containing the same part number. It is the most commonly used Inbound Material/Part Identification Label. Information on the Single Pack Label includes: supplier name and address, Flexfab part number, quantity, PO number, PO Line number, supplier lot number (if applicable), packing slip number, serial number, supplier code, supplier part number, linear barcodes and a 2D barcode.

**Note:** The serial number is a unique number that identifies each individual box within the shipment. No two single pack label/box label can have the same serial number within the shipment.

A <u>Master Label</u> is required for all containers, pallets, skids, etc. and essentially is used to summarize the quantity of the **same** part number for the same PO line going to one single destination.

Information on the Master Label is the same as the Single Pack / Box label except:

- + A banner across the top indicating this label as a Master Label
- + The quantity is the total for the same part number on that PO line
- + The serial number prefix is 4S instead of 3S as indicated on a Single Pack / Box Label
- + The serial number of the master label should be unique within the shipment

**Note:** Skids containing the same part number but for two PO lines must have two master labels. Skids containing more than one part number would have more than one master label.

A <u>Mixed Load Label</u> is to be used for containers, pallets, skids, etc., holding more than one single pack of **different** part numbers going to one single destination. See page 19 for specific details.

A <u>Multiple Lot Label</u> is to be used for containers holding more than one supplier lot number of the same part number within that single container. (i.e. 24 sheets of material are packaged in a single container where each of the sheets has a different supplier lot number)

### 4 Data Area Characteristics

The specifications in this section apply mainly to the Single Pack Label, aka Box Label. Specifications for Master and Mixed Load Labels are explained in following sections.

### Single Pack/Box Label

Each label is divided into areas that contain specific data. The part number, quantity, purchase order number, purchase order line number, lot number (if applicable), packings slip number, and serial number are to be displayed in both human readable characters and linear barcode symbols. The 2D barcode, upper right, is explained in section 4m below. All other fields will be displayed in human readable text only.



### a. Data Areas and Titles

Data areas must be separated by horizontal and vertical thin lines and are to contain their respective titles, as shown above. Outer borderlines are optional.

Titles should be printed no smaller than 0.09 inch (2.5 mm) high letters. The data area titles for the Single Pack / Box Label are: PART # (P), QUANTITY (Q), P.O. NO (K), PO LINE (4K), LOT # (1T), DESCRPTION, SUPPLIER CODE, PACK SLIP (2K), SERIAL (3S), SUPPLIER P/N, and SLED.

All fonts on the label should be bold UPPER CASE for readability. Fonts shall be Slashed Zero Arial. If it is not available, a comparable font should be used. Color fonts and/or Italics should not be used. The numeric zero should be shown with distinguishable mark such as a diagonal slash to differentiate it from the alpha character 0.4

### b. Use of Data Identifiers for Linear Barcodes

A data identifier (sometimes referred to as a DI, or a prefix) is one or more characters that define a general category type or specific use of barcoded data.

The data identifier must immediately follow the start character in the linear barcode symbol and before the actual data and will identify the type of information encoded in that symbol. Care must be taken that the barcoded data has the proper identifier. (For example, a quantity of 125 would be coded as Q125)

The data identifiers are listed below:

DATA IDENTIFIER	DATA AREA
Р	Part Number
Q	Quantity
K	Purchase Order Number
4K	Purchase Order Line Number
1T	Lot Number
2K	Packing Slip Number
3S	Serial Number
4\$	Serial Number for a Master Label Only

The data identifier must be in human readable characters in parentheses next to the title for the appropriate data area.

The data identifier is NOT to be included in the human readable interpretation of the barcode symbol. Use of Data Identifiers for Linear Barcodes

### c. Part Number Area



The part number will be designated by Flexfab LLC.

The human readable part number characters must be a minimum of 0.25 inch (6.5 mm) high.

The barcode symbol for the part number should be directly below the human readable characters, be a minimum of 0.5 inch (13 mm) high and contain the data identifier (P). A 0.25 inch (6.5 mm) white space allowance is required on both sides of the barcode symbol.

### d. Quantity Area



The human readable quantity characters must be a minimum of 0.25 inch (6.5 mm) high.

The barcode symbol in the quantity area should be located directly under the human readable characters, be a minimum of 0.5 inch (13 mm) high and contain the data identifier (Q). A 0.25 inch (6.5 mm) white space allowance is required on both sides of the barcode symbol.

### e. Unit of Measure

The unit of measure is assumed to be pieces or each, unless otherwise specified on the Purchase Order. When the unit of measure is pieces or each, no notation of unit of measure is required.

When the unit of measure is not pieces or each (for example, pounds, feet, inches, etc.), it must appear in human readable form directly to the right of the Quantity Area and must be a minimum of 0.25 inch (6.5 mm) high.

Unit of measure abbreviations as defined in Appendix B are to be used.

The unit of measure is NOT to be barcoded. Part Number Area

### f. Purchase Order Number Area



Purchase Order numbers are issued to the suppliers by Flexfab LLC.

The human readable purchase order number characters must be a minimum of 0.25 inch (6.5 mm) high.

It is preferred that the barcode symbol in the purchase order number area be located directly under the human readable characters, be a minimum of 0.5 inch (13 mm) high and contain the data identifier (K). A 0.25 inch (6.5 mm) white space allowance is required on both sides of the barcode symbol.

### g. Purchase Order Line Number Area



Purchase Order Line numbers correlate to the line on the PO that is being shipped.

The human readable purchase order line number characters must be a minimum of 0.25 inch (6.5 mm) high.

It is preferred that the barcode symbol in the purchase order line number area be located directly under the human readable characters, be a minimum of 0.5 inch (13 mm) high and contain the data identifier (4K). A 0.25 inch (6.5 mm) white space allowance is required on both sides of the barcode symbol. Purchase Order Number Area

### h. Lot Number Area



This area may be used for supplier traceability numbers such as a lot number. This information is assigned by the supplier, not Flexfab LLC.

The human readable lot number characters must be a minimum of 0.25 inch (6.5 mm) high.

It is preferred that the barcode symbol for the lot number be location directly below the human readable characters, be a minimum of 0.5 inch (13 mm) high and contain the data identifier (1T). A 0.25 inch (6.5 mm) white space allowance is required on both sides of the barcode symbol.

**Note:** If the container for a single part number contains more than one lot number within the container, you may be required by Flexfab LLC to use a Multiple Lot Label on the container (see page 18 for details). Or, you may include the bar code of each lot number in the container on your packing list. The individual part numbers within the container must include a single item label for proper part identification when containers are packaged with multiple lot numbers.

### i. Packing Slip Area



This area is used by the supplier to reference the packing slip that accompanies this shipment.

The human readable packing slip number must be a minimum of 0.19 inch (5 mm) high.

The barcode symbol for the packing slip number should be located directly below the human readable characters, be a minimum of 0.47 inch (12 mm) high and contain the data identifier (2K). A 0.25 inch (6.5 mm) white space allowance is required on both sides of the barcode symbol.Lot

### j. Serial Area



This area is used by the supplier to make a unique number for this box within the shipment.

The human readable serial number must be a minimum of 0.19 inch (5 mm) high.

The barcode symbol for the serial number should be located directly below the human readable characters, be a minimum of 0.47 inch (12 mm) high and contain the data identifier (2K). A 0.25 inch (6.5 mm) white space allowance is required on both sides of the barcode symbol.

### k. Supplier Name and Address Area

### WIDGET INC. 12345 PIECES STREET SW INVENTIONS MI 49123

In the "SHIP FROM" area, the supplier name and address (including street, city, state and zip code) are to be printed in characters a minimum of 0.09 inch (2.5 mm) high.

The supplier name and address area are NOT to be barcoded.

## I. Description Area, Supplier Code, Supplier Part Number and Shelf Life Expiration Date Area

LINE 1 OF ITEM DESCRIPTION
LINE 2 OF ITEM DESCRIPTION
SUPPLIER CODE:
5400AB
SUPPLIER P/N:
Z110659900 — 1
SLED:
12/07/2018

In the "DESCRIPTION" area, the supplier's part description should be printed in characters a minimum of 0.19 inch (5 mm) high. The area allows for two lines of 26 characters each.

The "Supplier Code:" area, contains the supplier code assigned by Flexfab LLC. This code should be printed in human readable characters a minimum of 0.19 inch (5 mm) high.

The "Supplier P/N:" area, the supplier part number should be printed in human readable characters a minimum of 0.19 inch (5 mm) high.

The "SLED:" (Shelf Life Expiration Date) area, the shelf life expiry date of the supplier's part number should be printed in human readable characters (if applicable) in the format of MM/DD/YYYY in characters a minimum of 0.19 inch (5 mm) high.

The date format should be compatible with the country of the Flexfab dock's standard format.

- + US based docks should use MM/DD/YYY format
- + European docks should use DD/MM/YYY format

NONE of the information listed is section L should be barcoded.

### m. 2D Barcode Summary

This barcode is used to collect all label data in one spot.

The Vertical Pipe is used as a data separator (VP) and looks like this | which is the upper case \. The Label Type identifies if this is a Single Pack / Box Label (B) or if it's a Master Label (M).

The 2D barcode has the follow format:

DATA ELEMENT	LENGTH	DATA SEPARATOR	EXAMPLE	MAX LENGTH W/ SEP
Label Type	1		ВІ	2
Supplier Code	10		5400AB	11
PO Number	10		ACEGIKMOQS	11
PO Line Number	4		1000	5
Part Number	15		A2C4E6G8I0K2M4O6	16
Quantity	8		99999999	9
Unit of Measure	3		EAI	4
Lot Number	16	I	1B3D5F7H9J1L3N5P	17
Packing Slip Number	10	I	9876543210	11
Serial Number	10	I	0123456789	10

### **APPENDIX A**

# Quick Start for Developing Single Pack, Master and Mixed Load Labels Single Pack / Box Label (Not to scale)



2D Barcode (see page 15 for details)

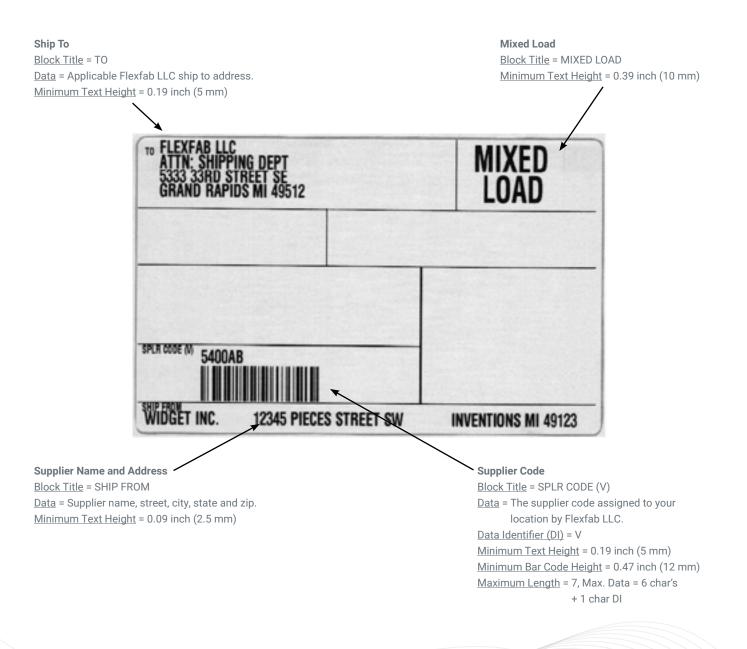
TITLE	BLOCK TITLE	DATA	DATA IDENTIFIER (DI)	MINIMUM TEXT HEIGHT	MINIMUM BAR CODE HEIGHT	MAXIMUM LENGTH	DATA FORMAT
Part Number	PART NO. (P)	The part number designated by Flexfab LLC	Р	0.25 inch (6.5 mm)	0.5 inch (13 mm)	17, Max. Data = 16 char's + 1 char DI	
Purchase Order Number	P.O. NO (K)	The purchase order number issued by Flexfab LLC	К	0.25 inch (6.5 mm)	0.5 inch (13 mm)	11, Max. Data = 10 char's + 1 char DI	
Purchase Order Line Number	PO LINE (4K)	The purchase order line number	4K	0.25 inch (6.5 mm)	0.5 inch (13 mm)	6, Max. Data = 4 char's + 2 char DI	
Description	DESCRIPTION	Supplier description of part number		0.19 inch (5 mm)		52, Max. Data = 2 lines of 26 char's	
Supplier Part Number	SUPPLIER P/N:	Supplier's internal part number		0.19 inch (5 mm)		26, Max. Data = 26 char's	
Shelf Life Expiration Date	SLED:	Supplier shelf life expiry date (if applicable) for part number		0.19 inch (5 mm)		10, Max. Data = 10 char's	See note on page 14
Quantity	QUANTITY (Q)	The number of pieces in this container	Q	0.25 inch (6.5 mm)	0.5 inch (13 mm)	9, Max. Data = 8 char's + 1 char DI	
Lot Number (if applicable)	LOT # (1T)	Supplier traceability number	1T	0.25 inch (6.5 mm)	0.5 inch (13 mm)	18, Max. Data = 16 char's + 2 char DI	
Packing Slip Number	PACK SLIP (2K)	The packing slip associated with this shipment	2K	0.19 inch (5 mm)	0.47 inch (12 mm)	12, Max. Data = 10 char's + 2 char DI	
Serial Number	SERIAL (3S)	The unique serial number representing this box within this shipment	38	0.19 inch (5 mm)	0.47 inch (12 mm)	12, Max. Data = 10 char's + 2 char DI	
Supplier Code	SUPPLIER CODE:	Supplier Code assigned by Flexfab LLC		0.19 inch (5 mm)		10	
Name and Address	SHIP FROM	Supplier name, street, city, state and zip		0.09 inch (2.5 mm)			



2D Barcode (see page 15 for details)

TITLE	BLOCK TITLE	DATA	DATA IDENTIFIER (DI)	MINIMUM TEXT HEIGHT	MINIMUM BAR CODE HEIGHT	MAXIMUM LENGTH	DATA FORMAT
Part Number	PART NO. (P)	The part number designated by Flexfab LLC	Р	0.25 inch (6.5 mm)	0.5 inch (13 mm)	17, Max. Data = 16 char's + 1 char DI	
Purchase Order Number	P.O. NO (K)	The purchase order number issued by Flexfab LLC	K	0.25 inch (6.5 mm)	0.5 inch (13 mm)	11, Max. Data = 10 char's + 1 char DI	
Purchase Order Line Number	PO LINE (4K)	The purchase order line number	4K	0.25 inch (6.5 mm)	0.5 inch (13 mm)	6, Max. Data = 4 char's + 2 char DI	
Master Label Banner	MASTER LABEL	MASTER LABEL		0.19 inch (5 mm)			
Quantity	QUANTITY (Q)	The number of pieces in this container	Q	0.25 inch (6.5 mm)	0.5 inch (13 mm)	9, Max. Data = 8 char's + 1 char DI	
Lot Number (if applicable)	LOT # (1T)	Supplier traceability number	1T	0.19 inch (5 mm)	0.47 inch (12 mm)	18, Max. Data = 16 char's + 2 char DI	
Serial Number	SERIAL (4S)	The unique serial number representing this box within this shipment	4S	0.19 inch (5 mm)	0.47 inch (12 mm)	12, Max. Data = 10 char's + 2 char DI	
Description	DESCRIPTION	Supplier description of part number		0.16 inch (3 mm)		52, Max. Data = 2 lines of 26 char's	
Packing Slip Number	PACK SLIP (2K)	The packing slip associated with this shipment	2K	0.19 inch (5 mm)	0.47 inch (12 mm)	12, Max. Data = 10 char's + 2 char DI	
Supplier Code	SUPPLIER CODE:	Supplier Code assigned by Flexfab LLC		0.19 inch (5 mm)		10	
Supplier Part Number	SUPPLIER P/N:	Supplier's internal part number		0.19 inch (5 mm)		26, Max. Data = 26 char's	
Supplier Name and Address	SHIP FROM	Supplier name, street, city, state and zip		0.09 inch (2.5 mm)			
Shelf Life Expiration Date	SLED:	Supplier shelf life expiry date (if applicable) for part number		0.19 inch (5 mm)		10, Max. Data = 10 char's	see note on page 14

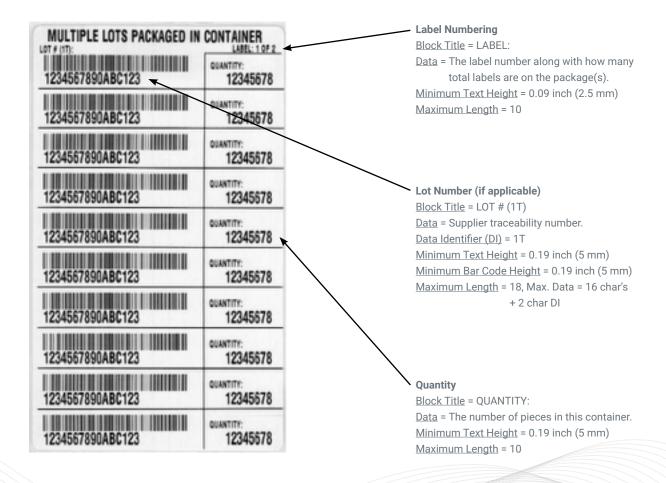
### **Mixed Load Label (Not to scale)**



In addition to the Mixed Load label above, an orange sticker clearly identifying the load as MIXED should be placed on the outside of the skid. Below is an example:



# Multiple Lots Packaged in Container (Not to scale)



### **APPENDIX B**

# Quick Start for Developing Single Pack, Master and Mixed Load Labels Single Pack / Box Label (Not to scale)

UNIT OF MEASURE (EDI VALUE)	NAME
EA	EACH/PIECE
FT	FOOT
GA	GALLON
GR	GRAM
GS	GROSS
HC	HUNDRED PIECES
HE	HUNDREDTH CARAT
HF	HUNDRED FEET
HG	HECTOGRAM
HH	HUNDRED CUBIC FEET
HR	HOUR
HU	HUNDRED PIECES
IN	INCH
JR	JAR
KG	KILOGRAM
KT	KIT
LB	POUND
LK	LINK
LN	LENGTH
LO	LOT
LT	LITER
LY	LINEAR YARD

UNIT OF MEASURE (EDI VALUE)	NAME
MC	MILLIGRAM
ML	MILLILITER
MM	MILLIMETER
MN	METRIC NET TON
MO	MONTH
MR	METER
MS	SQUARE MILLIMETER
NB	BARGE
NC	CAR
OZ	OUNCE - AV
PA	PAIL
PC	PIECE
PF	PALLET
PK	PACKAGE
PR	PAIR
PT	PINT
QT	QUART
RE	REEL
RL	ROLL
RO	ROUND
SC	SQUARE CENTIMETER
SE	SECTION

### **APPENDIX B CONTINUED**

# Quick Start for Developing Single Pack, Master and Mixed Load Labels Single Pack / Box Label (Not to scale)

UNIT OF MEASURE (EDI VALUE)	NAME
SF	SQUARE FEET
SH	SHEET
SI	SQUARE INCH
SM	SQUARE METER
SO	SPOOL
ST	SET
SU	SHORT TON
SY	SQUARE YARD
ТВ	TUBE
TC	TRUCKLOAD
TG	GROSS TON

UNIT OF MEASURE (EDI VALUE)	NAME
TK	TANK
TL	THOUSAND FEET LINEAR
TM	THOUSAND FEET BOARD
TN	NET TON
ТО	TROY OUNCE
TS	THOUSAND SQUARE FEET
TW	THOUSAND PIECES
TY	TRAY
VI	VIAL
WK	WEEK
YR	YEAR

### **APPENDIX C**

### **Label Locations on Various Shipping Packs**

#### **BAG**

Place one label at the center of face.

### **BALES**

Identical labels must be located at the upper corner of an end and the adjacent side.

### **BASKET, WIRE MESH CONTAINER**

Identical labels must be located on two adjacent sides.

### PLASTIC RETURNABLE CONTAINERS

Identical labels must be located on two adjacent sides. Specific location of the labels will depend on the container design.

### **METAL TUB**

Attach hang tag with label adhered to ear of tub or use a label holder.

### **BOX, CARTON, OR HAND WEIGHT CONTAINER**

Identical labels must be located on two adjacent sides. The upper edges of the labels should be as high as possible up to 20 inches from the bottom of the carton or hand weight container.

### **BUNDLE**

Identical tags must be located on each end.

### **CARTONS OR HAND WEIGHT CONTAINERS ON PALLET**

Each carton or hand weight container must be individually labeled as described for the container. Two identical Master Labels must be used on adjacent sides or two Mixed Load Labels on adjacent sides.

### **APPENDIX C CONTINUED**

### **Label Locations on Various Shipping Packs**

### DRUMS, BARRELS, OR CYLIDRICAL CONTAINERS

Identical labels must be located on two adjacent sides.

### **PALLET BOX**

Identical labels must be located on two adjacent sides.

### **RACK**

Attach hang tag with label adhered to the ear of rack.

### **ROLL**

Hang one tag 2.0 inches (51 mm) from end of material.

### **TELESCOPIC OR SET-UP CONTAINERS**

Identical labels must be located on two adjacent sides of the outer box. Some applications may also require identification on the inner box.