Title: Supplier Packing and Labeling Specifications

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EXHIBIT A: Outer Package Bar Code Label
EXHIBIT B: Inner Package Label & Reel Label

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1.0 PURPOSE AND SCOPE

1.1 Purpose

This specification is for the minimum packing and labeling of any materials shipped to Suntron GCO. Currently this includes, but is not limited to:

SUNTRON GCO

1113 Gillingham Lane
Sugar Land, TX 77478

1.2 Scope

This specification defines the packaging and identification requirements for supplying material to Suntron GCO. These requirements will permit uniform storage and handling of material at Suntron GCO. This specification is also intended to be a building block for Suntron GCO to continue to streamline its flow of materials. It is intended to be flexible enough to accommodate change and facilitate innovations in our industry.

2.0 REFERENCES

2.1 Standards

Standard	Section	Paragraph	Description
EIA-556			Outer Shipping Container Bar Code Label
21 CFR 820.50			Purchasing Controls

2.2 Websites

Description	Link

2.3 Procedures and Work Instructions

2.3.1 Level II – Procedures

- TX1_MTL_PUR_2_001 Purchasing

2.3.2 Level III – Work Instructions

- TX1_MTL_PUR_3_009 Supplier Selection, Approval and Tracking

2.4 Forms

- N/A

3.0 PROCESS MAP

This process is sent to the supplier in the New Supplier Packet and is not an internal Suntron GCO process.

4.0 OPERATING PROCEDURES

Describe the step-by-step instructions for each box identified in Section 3.0. Explain how each step is to be accomplished.

4.1 Packaging Requirements

Suntron GCO requires that shipments made to its facilities conform to the following guidelines:

4.1.1 The size of the shipping box must be chosen such that maximum space utilization of the box is achieved. Shipping boxes should have enough strength to permit stacking without crushing. The box closure must keep the contents intact during shipping, handling, and insure interior cleanliness.

4.1.2 Void spaces in partially filled boxes must be filled.

4.1.3 Shipping boxes having maximum gross weight that exceed 70lbs each must be shipped on a pallet for mechanized handling. This is necessary if the shipment will occupy 50% or more of a full pallet load. Such loads must be palletized in accordance with the specifications of section 4.4.

4.1.4 The use of Styrofoam peanut packaging is prohibited.

4.1.5 Parts that are susceptible to surface damage, i.e., scratches, denting, etc. must be packaged with corrugated partitions or in individual boxes to prevent part shifting or rubbing.

4.1.5.1 Build-to-Print parts should be, **at a minimum,** individually wrapped to prevent incidental scratches and dents. Foam wrapping 1/8" thick laminated polyethylene foam is recommended to remain around the part until the part's point of use. This foam wrapping material should be either heat-sealed or taped to form foam pouch, wrapped around a part and tape sealed, or a combination of both, labeled with the following: part number, revision, and supplier id number.

4.1.5.2 After foam wrap **the preference** is that individual parts should be placed in a protective bag. This will be used only for parts that are not susceptible to surface damage. In most cases the bag will remain around the part until the part's point-of-use. For metal or other surface susceptible parts, individual boxes may be substituted for bags. Each individual bag/box will be labeled with the following: part number, revision, and supplier id number.

4.1.5.3 Any deviation from this preferred method must be approved by Suntron in writing.

4.1.6 Packaging materials, procedures and workmanship shall be of good commercial quality and practice. Materials shall not cause commodity deterioration or degradation of the part's cleanliness.

4.1.7 Cushioning is required for packaging of fragile parts as a protection from shock and vibration damage.

4.1.8 Anti-static packaging materials (conductive) must be used in the packaging of electro-static sensitive components. Proper electro-static discharge caution markings must be used on the package. Anti-static packaging materials should also be used for non-sensitive components when specified on component drawing, purchase order or other applicable specification.

4.1.9 All PCBA's must be packaged in a partitioned carton that allows product to be placed in individual slots to provide proper protection level for these sensitive components.

4.1.10 Moisture Sensitive devices must be labeled as such with moisture sensitive level and exposure times. Items must be packaged in moisture barrier/vacuum sealed bags with a humidity indicator card and a desiccant.

4.1.11 All UL labels on spools of wire must be attached to the spool and not to the wire.

4.1.12 Spools will be contiguous unless otherwise documented.

4.1.13 Parts must not be intermixed with other parts. Parts shipped on different purchase orders must be packed separately and identified accordingly. Parts with the same part number that are sent on multiple packing slips must be packed and identified separately.

4.1.14 *Combining of multiple lot codes in the same protective wrap is prohibited*. *Also combining mixed lots in trays and reels is prohibited.* Consolidation of orders into a master pack is permitted as long as the guidelines in section 4.1.13 are adhered to.

4.1.15 If Barcode capabilities are for some reason not available, the vendor must clearly mark the purchase order number, part number, quantity and date code or lot code on the outside of the part package and shipping package. The same information is required on the packaging list sent with the shipment.

4.1.16 All vendors must ship product as specified per the Vendor Routing Instructions. The purchasing department will determine the type of service that will be needed with that specified carrier. Suntron GCO will not be responsible for any freight cost incurred from a carrier that is not specified by Suntron GCO without management approval.

4.1.17 Additional marking to indicate enclosed documents will be added to all containers that include required documents (such as Certificates of Conformance, First Article Inspections, Test Data, etc.).

4.2 Conformance Tracking

Shipments received at Suntron GCO facilities will be evaluated to determine any deviation from the guidelines of this specification and those on the purchase order. A non-conformance report will be

generated for each non-conforming shipment. The Purchasing Associate who placed the order will contact the supplier for corrective action.

4.3 Identification of Containers and Components

All shipping containers and packages must be identified with a bar-coded information label. The supplier is responsible for following the guidelines for the label format and configuration outlines here. These guidelines are adapted from the Electronic Industries Association (EIA) specification number EIA-665-A. In addition, any other specifications not mentioned in this document must comply with the EIA-665-A specification.

4.3.1 Label Format

The label contains various fields of information in human readable and bar-code print as shown in Exhibit A. The information required on the label and the format of the label are listed in the sections below. The format of the label shown in this specification is for illustration purposes, and other formats may be used as long as they adhere to the EIA-556-A standard.

4.3.1.1 Data Identifiers

The data identifier shall be enclosed in parentheses preceding the title of each bar code data field. The data identifier shall be immediately followed by a "+" sign in each bar code symbol, but not in the human readable line. A partial list of common data identifiers is shown below:

K - Purchase Order Number
P - Suntron GCO Part Number
Q - Quantity

Note: These data identifiers are in accordance with the FACT Data Identifier standard (ANSI/FACT-i, 1989). The plus "+" character is *used immediately after the data identifier with no space either before or after the "+" sign.*

4.3.1.2 Overall Size

The recommended size for the bar code labels shown in Exhibit A is 4.0 inch by 6.0 inch (102 mm by 153 mm). A maximum size, 5.0 inch by 6.5 inch (127 mm by 165 mm) label will accommodate the maximum data fields presently contained on the label format shown. Figure 1 shows the minimum, maximum and preferred sizes. (See Exhibit A for appropriate areas)

	Preferred	Minimum	Maximum
a	4.0" (102 mm)	4.0" (102 mm)	5.0" (127 mm)
b	6.0" (153 mm)	4.0" (102 mm)	6.5" (165 mm)
c	1.0" (26 mm)	1.0" (26 mm)	2.9" (74 mm)
d	0.5 (13 mm)	0.5" (13 mm)	0.7" (18 mm)
e	0.5 (13 mm)	0.4" (10 mm)	0.8" (20 mm)
f	2.0" (51 mm)	2.0" (51 mm)	5.0" (127 mm)
C-H	0.75" (19 mm)	0.75" (19 mm)	1.0" (25 mm)

Dimensions are in inches (mm)

Figure 1 Label Sizing Format

4.3.1.3 Definition of Label Information Fields
The following is a summary of the definitions for the various fields that are used on the label. Additional information is available in the EIA-556-A standard.

PACKAGE ID: This field is a supplier assigned number. It is the specific number that identifies that particular package to a particular invoice. The length of the field may be up to 25 alpha numeric characters. This is a required field and requires a bar-code.

PURCHASE ORDER NUMBER: This field is assigned by Suntron GCO, and is a critical field for package identification. The length of this field is up to 7 numeric only characters. The data identifier is the letter 'K'. This is a required field and requires a bar-code.

PART NUMBER: This number is provided by Suntron GCO. The length of this field is up to 15 alpha-numeric and can be found on the Suntron GCO purchase order. The data identifier is the letter 'P'. This is a required field and requires a bar-code.

QUANTITY: This field represents the quantity in the package or container to which the label is affixed. The length of the field is a maximum of 10 numeric characters. The data identifier is the letter 'Q'. This is a required field and requires a bar-code.

DATE & LOT CODE: This field represents the date of manufacture and lot code for the materials manufactured. Either the date of manufacture or lot code must be provided. This is a required bar code field.

Note: *All PCBA components require date or lot code numbers on the outside of the packaging as well as on the packing list*.

SHIP DATE: This date represents the date the shipment is made by the supplier, and is used

for general information. It is a required field, but does not require bar-coding.

PACKAGE COUNT: This field is a non-bar-coded field which describes the numerical sequence of the package when more than one package is shipped for a specific order.

PACKAGE WEIGHT: This field is a non-bar-coded field which provides the weight of that particular package.

4.3.2 BAR CODE SYMBOLOGY

All bar-code data fields must use Code 3 of 9. The code 39 configuration shall be in accordance with (AIM) USS-39 symbol specification. The density of the bar-code symbol shall be nominally 3.7 to 6.9 characters per inch. The density of any one label shall be identical.

4.3.3 PRINT QUALITY LEVEL

The print quality shall be in accordance with ANSI X3.182-1990, Guideline for Bar Code Print Quality. A minimum print quality grade level of B is required.

4.3.4 LABEL MATERIAL

The label will be a paper thermal transfer label with permanent pressure sensitive adhesive. The dimensions are defined in Figure 1.

4.3.5 INNER PACKAGE LABEL

Inner packages must be identified by a bar-coded label as shown in Exhibit B.

4.3.6 REEL LABEL

All reeled components must be identified with a bar-coded label as shown in Exhibit B. The following guidelines must be adhered to in regard to label placement on the reel:

4.3.6.1 Reel structure and surface should allow for placement of the label on solid surface.

4.3.6.2 Label must be an appropriate size and not interfere with the feeding of the components or overhang the edge of the reel.

4.3.6.3 Label adhesive must be compatible with the reel surface being applied to. The label must not peel off and should tear apart if pulled off.

4.4 Palletizing

Suntron GCO requires palletizing of boxes when the weight of each box exceeds 70lbs.The following restrictions apply for palletized loads:

4.4.1. The pallet size should be a standard wooden pallet with maximum pallet height with material not greater than 40 inches.

4.4.2. Palletized loads must be adequately banded or secured to prevent load shifting in handling and transportation.

4.4.3 Corner boards are recommended when palletizing material.

4.4.4 No overhang is permitted on any palletized loads.

4.4.5. Leaning, bulging, and/or unstable loads are not permitted.

4.4.6 The identification is on the outside of the load and completely visible.

5.0 RECORDS

Records of supplier evaluation are maintained in accordance with the matrix of records presented in TX1_QAS_QMS_2_001.

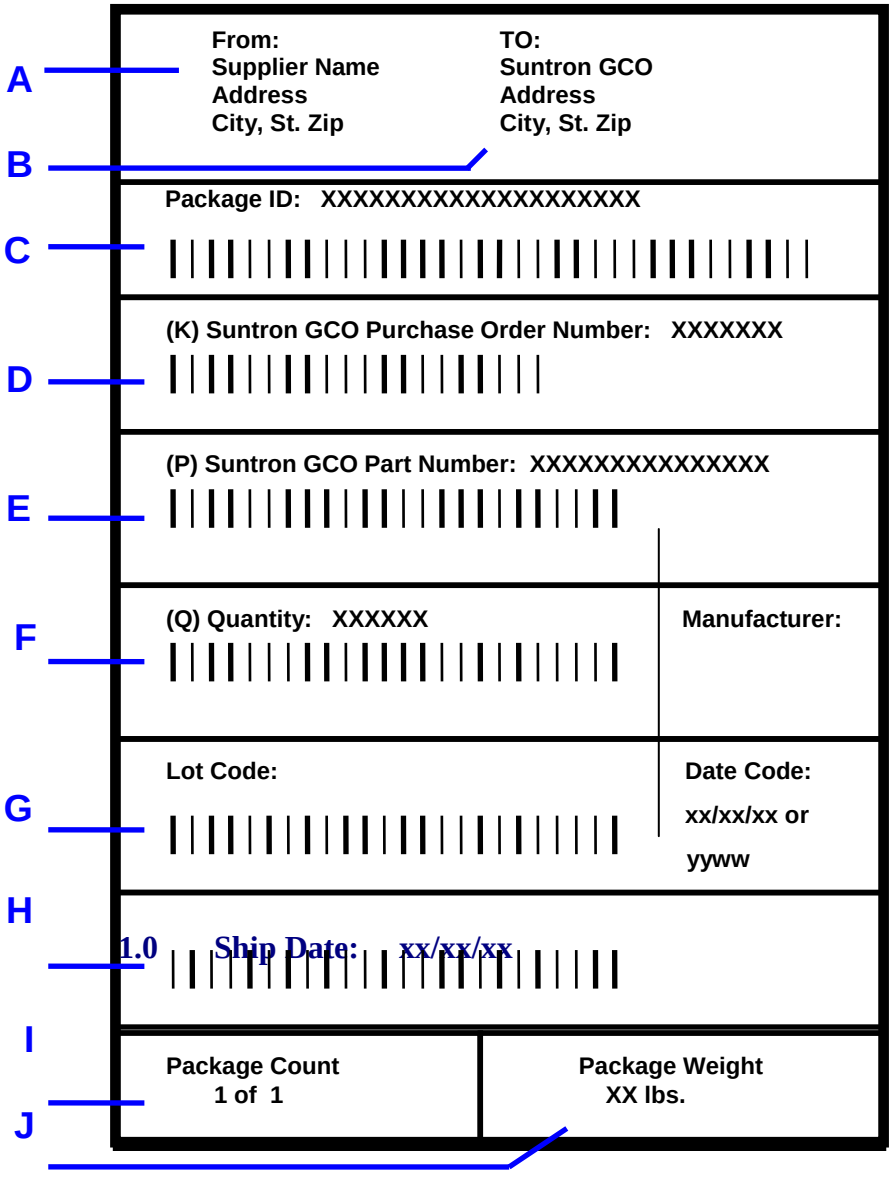
6.0 REVISION LOG

Revision	Authorized By	Date	Section	Change
D		6/27/06		Add Revision Block
D	Tracey Rodriguez	10/30/2007	5.0	Per Waiver 0051; GCO Control of Records Procedure
E	Honor Hruby	7/23/08	2.1 4.1.15, 4.3.1.3	Added 21 CFR 820.50 Purchasing Controls for GMP Changed requirement to date code or lot code and made it a required bar code field.

Comments or Problems, contact

Stakeholder List

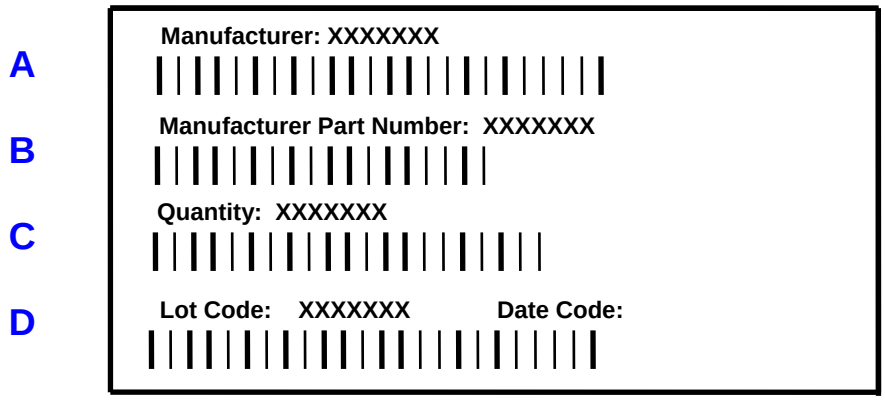
Exhibit A: Bar Code Label



Legend

A = Ship From
B = Ship To
C = Package I.D.
D = Suntron Order #
E = Suntron Part #
F = Quantity & Manufacturer
G = Date &/or Lot Code
H = Ship Date
I = Package Count
J = Package Weight

Exhibit B: Inner Package Label & Reel Label



Legend

A = Manufacturer
B = Manufacturer Part Number
C = Quantity
D = Lot &/or Date Code