Agilent Barcode Label Printing Bundle (G9201AA)

GC Hardware Barcode Labeling Guide

Introduction

Several Agilent instruments have barcode enabled readers integrated into their hardware. This labeling guide provides a quick reference for printing barcode labels to be read with the Agilent 7693A Automatic Sampler Tray (G4520A) or Agilent 7693A Automatic Liquid Sample Tray (G4514A) with barcode reader (G4515A), Agilent 7696A Workbench (G4529AA, G4539AA), and Agilent 7697A Headspace Sampler (G4557A). The barcode labels specific in this guide are within the specification of the barcode readers on the hardware.

The barcode label material selected for these instruments is chemical resistant and has a wide temperature range. The barcode is printed with a thermal printer using commercial software designed for barcode printing.

The 7693A Automatic Sampler Tray and 7696A Workbench have the same label material to provide a barcode label for 2-mL vials. The ribbon material is the same for the sampler vials of the 7693A Automatic Sampler Tray, 7696A Workbench, and 7697A Headspace Sampler. Due to the larger diameter vial for the 7697A Headspace sampler, the label has a larger length barcode label. The temperature range of the Headspace barcode label is the same range as the 2-mL vial barcode label. If a higher temperature is required, a different label and ribbon is available for the 7697A Headspace sampler specified to 300 °C.

Vial Section

Because this guide is for Agilent vials specifically, the templates may need to be adjusted for different supplier's material. See section on Label placement on how to label the vials for the 7693A Tray.

Label placement

2-mL Vial

The label for the 2 mL vial is required to be placed at the shoulder of the vial within 13.4 mm from the bottom of the vial. The skew of the label needs to be within 1 mm. The barcode height is 4.6 mm on the label. See Figure 2 for the placement of the label on the vial, and the location of barcode on the label.

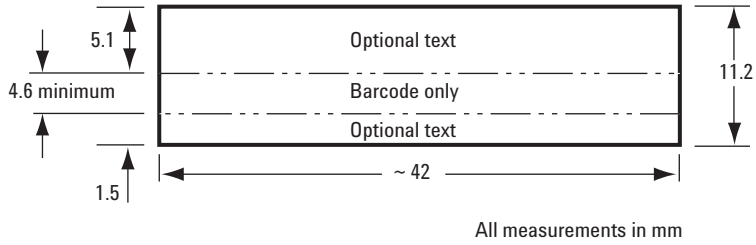

Figure 1. Recommended label template

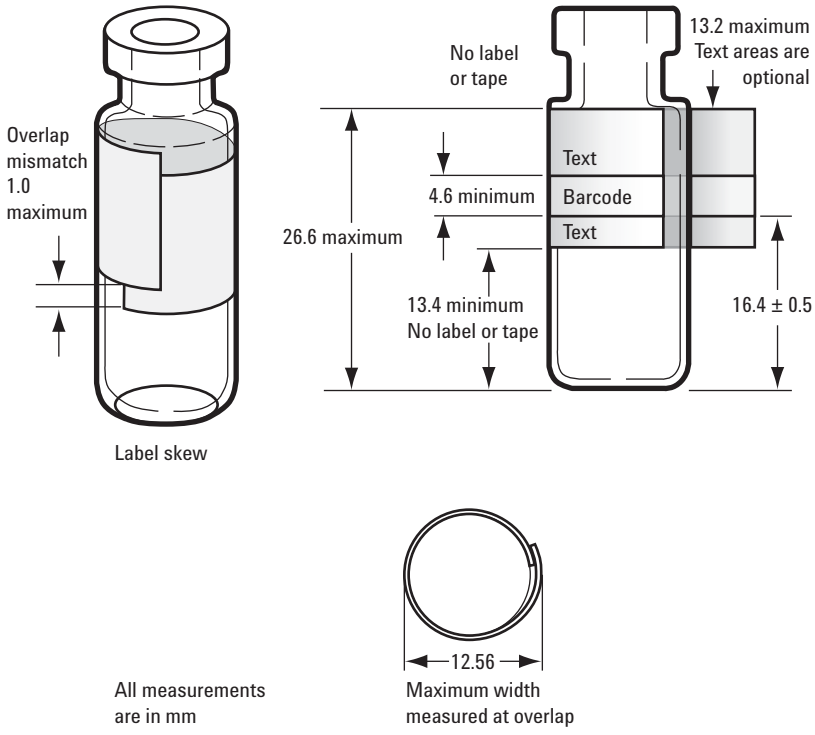

Figure 2. 2-mL Vial

Headspace Vial

The label for the headspace vial is required to be placed 20 mm from the bottom of the vial. The skew of the label needs to be within 1 mm. The start of the barcode is 22 mm from the bottom of the headspace vial. The barcode height must be at least 4.6 mm. See Figure 4 for the placement of the label on the vial, and the location of barcode on the label.

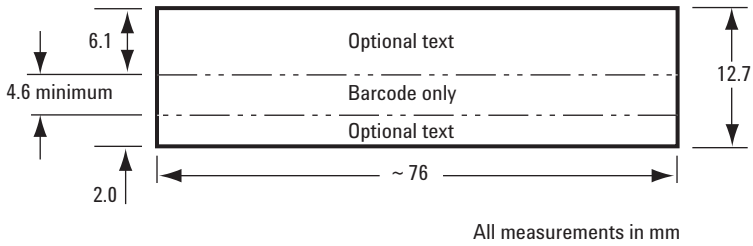

Figure 3. Headspace label template

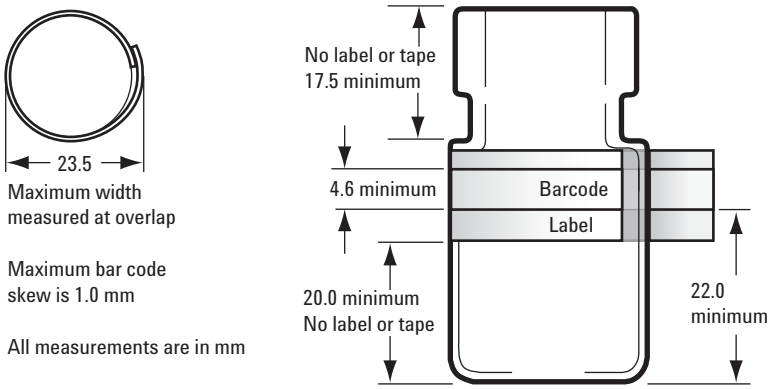

Figure 4. 7697 Headspace sampler

Features and Benefits

Laboratories use barcode labels for Sample ID and sample tracking. A barcode label is applied to a sample vial. The barcode can provide sample ID information, method information, or other sample information. Barcode labels printed from a spreadsheet or database minimize typos for sample identification. Minimizing this type of typo reduces errors transferring data to third party software such as LIMS

systems. More laboratories like to track samples throughout the lab. Barcoding sample vials tracks a sample through the chromatography progress.

Chemical Resistance

The label adhesive features high initial tack to form a tight seal. The label material has been evaluated for exposure to organic solvents such as DMSO, methylene chloride, methanol, ethyl acetate, and ethanol. The barcode labels can be placed on glass, polypropylene, polystyrene, PVC, and plasticized surfaces.

Symbolizes

Agilent hardware can read several barcode symbols such as 128, 3 of 9, 2 of 5, and UPC bar codes.

An Agilent 7697A Headspace sampler can read barcode symbols 128, 3 of 9, 2 of 5, UPC-A, EAN/JAN13, EAN/JAN8, UPC-E.

Barcode Label Templates and Overview

Using the barcode printing software program with the predefined label template enables a user to choose a data source of either hand entry, excel, database, or database through an OBDC connection. The database connection of OBDC enables a LIMS user to query sample information into the printing software from most LIMS systems with minimum set-up from a LIMS support source. For example, sample information can be imported from an excel sheet. See Table 1.

Table 1 Spreadsheet of data

Sample ID (Barcode information)	Sample description	Date
13333	Sample 13333	07/16/2010
13334	Sample 13334	07/16/2010
13335	Sample 13335	07/16/2010
13336	Sample 13336	07/16/2010
137133713371	Sample (13337)	07/16/2010
138133813381	Sample (13338)	07/16/2010
139133913391	Sample (13339)	07/16/2010

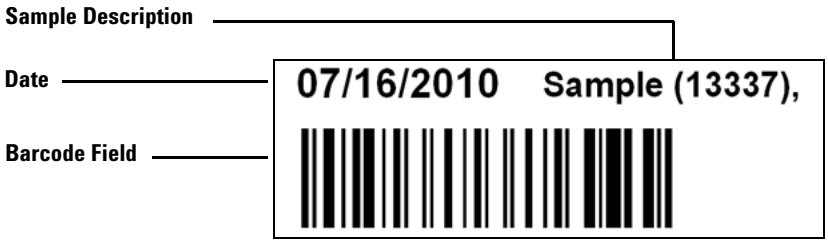

Figure 5. Example of the 2 mL vial for 7693A Tray and 7696A Workbench product

Figure 6. Example of Headspace Label for the 7697A Headspace product

The provided templates are used as a guide, and can be modified for a specific application or sample data. Twelve characters alpha, numeric, or combination can be converted to barcode and read by the hardware. The sample description field is also 12 characters alpha, numeric, or combination. The date field can be modified for other formats or additional data.

Specifications

Label

7693A Tray and 7696A Workbench (5190-3180) with Ribbon (5190-3177)

7697A Headspace up to 120 °C (5190-3181) with Ribbon (5190-3178)

7697A Headspace up to 300 °C (5190-3182) with Ribbon (5190-3179)

Ribbon

7693A Tray, 7696A Workbench, 7697A Headspace up to 120 °C (5190-3185)

7697A Headspace up to 300 °C (5190-3184)

Labels

The labels are chemical resistant and the material has been evaluated for exposure to organic solvents such as DMSO, methylene chloride, methanol, ethyl acetate, and ethanol. It is recommended that evaluations for the specific chemicals and temperature conditions in the laboratory are performed.

Printer

Barcode Thermal printer (G9201AA)

Software

Barcode printing software ZebraDesigner Pro2

Templates

Available on Agilent GC and GC/MS Hardware User Information & Instrument Utilities Software DVD (B.01.06 or higher, G4600-64006).

Printer

Thermal printer 300 dpi 10/100 ethernet

Dimensions of the printer:

Width: 7.6 in/193 mm

Height: 7.5 in/191 mm

Depth: 10.0 in/254 mm

Weight: 4.6 lbs/2.1 kg

PRINT SPEED

Maximum print speed 4 in/102 mm per second

RESOLUTION

300 dpi/12 dots per mm

CONNECTIVITY

Serial RS-232

USB V1.1

10/100 Ethernet

OPERATING CHARACTERISTICS

Environmental

Operating temperature: 40 °F/4.4 °C to

105 °F/41 °C

Storage temperature: -40 °F/-40 °C to 140 °F/60 °C

Operating humidity: 5% to 95% non-condensing

Storage humidity: 5% to 95% non-condensing

Electrical

Auto-detectable (PFC Compliant) 100-240 VAV,

50-60 Hz

Agency Approvals

Emissions: FCC Part 15, Subpart B, VCCI, C-Tick

Emissions and Susceptibility: (CE): EN55022

Class-B, EN61000-3-2, EN61000-3-0 and

EN55024, CCC

Safety: CB Scheme IEC IEC 60950:1991 +A1

+A2 +A3 +A3 +A4, TUV NRTL, IRAM NOM,

AAMI, CCC

Summary

This guide provides a printing solution for Barcode Labels for the Agilent 7693A Automatic Sampler Tray (G4514A) with barcode reader (G4515A), Agilent 7696A Workbench (G4529AA, G4539AA), and Agilent 7697A Headspace Sampler (G4557A). The barcode labels specific in this guide are within the specification of the barcode readers on the hardware. Even though the barcode labels are chemical resistant and have a wide temperature range, it is recommended that evaluations for the specific chemicals and temperature conditions in the laboratory are performed.

Definitions

ODBC Open DataBase Connectivity

Agilent Technologies

DMSO Dimethyl Sulfoxide

Warranty

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