

# GS1 BARCODE SERIALIZATION OVERVIEW



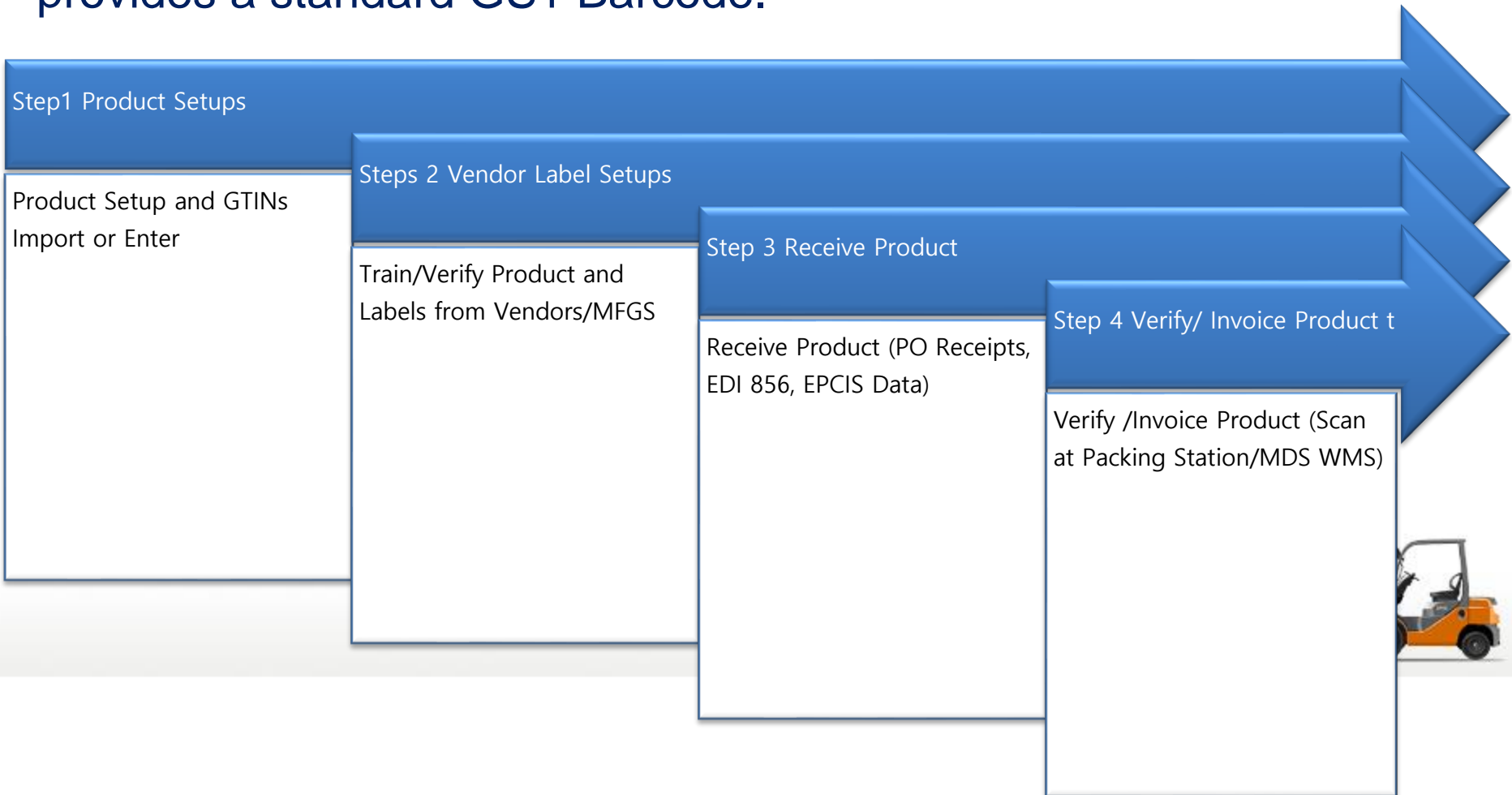
MDS User Meeting



# Overview



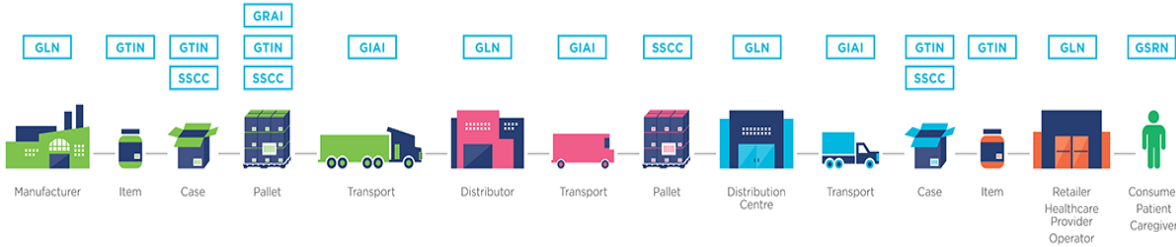
This Overview is designed to outline methods within the MDS-Nx System for easily scanning and identifying product that is serialized and provides a standard GS1 Barcode.





## Identify: GS1 Standards for Identification

GLN Global Location Number GTIN Global Trade Item Number SSCC Serial Shipping Container Code GRAI Global Returnable Asset Identifier GIAI Global Individual Asset Identifier GSRN Global Service Relation Number



## Capture: GS1 Standards for Barcodes & EPC/RFID

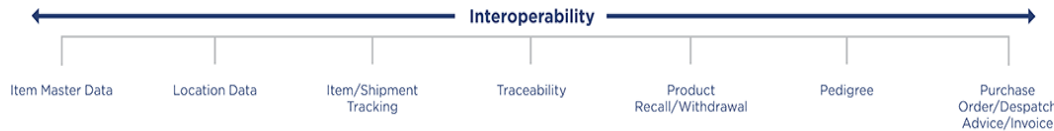
### GS1 Barcodes

### GS1 EPC/RFID



## Share: GS1 Standards for Data Exchange

Master Data Global Data Synchronisation Network (GDSN) Transactional Data Electronic Data Interchange (EDI) Event Data EPC Information Services (EPCIS)



- MDS supports full **Serialization with tracking, serial inquiry and auditing.**
- MDS has the capability of **creating automated sequential serial numbers during Purchase Order Receipts.**

# Serialization






<https://gepir.gs1.org/>

Home | GEPIR

gepir.gs1.org

Apps RemoteNet Public S... Crystal Reports Vie... Paychex Flex GitHub - Jpulver94/... VIPRE Definitions [... ValleyNationalBank... push sunset-git

 Welcome to GS1  
The Global Language of Business

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## GEPIR: Global Electronic Party Information Registry

GEPIR is a unique, internet-based service that gives access to basic contact information for companies that are members of GS1.

[More info about GEPIR](#)

**Search by GTIN**

Search by Global Trade Item Number (GTIN)

**Search by GLN**

Search by Global Location Number (GLN)

**Search by other GS1 Keys**

Search by other GS1 Keys such as SSCC, GRAI, GIAI, etc.

**Search by Party Name**

Search by Party Name and Country

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# Serialization and Traceability



- Utilizing GS1 Standards there are 3 components:
  - Identify – Using globally unique identification keys
    - GLN – Global Location Number. Your company and warehouses will have a unique GLN number. All of your customers and their shipto's should have GLN numbers assigned by GS1.
    - GTIN – Global Trade Identification Number. Each item will have a unique GTIN for each saleable unit of measure.
    - SSCC – Serial Shipping Container Code. Serial shipping container is used to identify items packaged together for transport.
  - Capture – by utilizing barcode scanning
    - GS1 DataMatrix barcode is read by camera-based bar code scanners.
      - Contains: GTIN, Expiration Date, Lot Number and Serial Number of the item
    - GS1-128 line bar code. Easily read by a handheld scanner.



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Example: Use of GS1 Standards for the identification of products using a GS1 DataMatrix



GTIN: (01) 07046261398572  
Expiry: (17) 130331  
Batch / lot: (10) TEST5632  
S/N: (21) 19067811811



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Expiry: (17) 130331  
Batch / lot: (10) TEST5632  
S/N: (21) 1906781181



( 01) 10222222333334( 17) 091231( 10) A1345B( 21) 1234



# Product Setup



- Import GTINS using MDS Import (Product, GTIN , UM)
- Setup in Product Master

Application

Product # D101 147178

97.UoM	GTIN Number	Length Weight	Width Volume	Height Dim Weight
EA	30044102102119	0.0	0.0	0.0
		0.00	0.000	0.00
BX	40044102102116	0.0	0.0	0.0
		0.00	0.000	0.00
		0.0	0.0	0.0
		0.00	0.000	0.00
		0.0	0.0	0.0
		0.00	0.000	0.00

Please make a selection, OK/END to Save, or Cancel

PAGE 5 OF 6

Notes Prod Num Chg Prod Repeat

--more-- Ok/End Insert Delete Prev Next Inquiry Cancel Off Popup

The Systems House | Operator:SF Ready. 2/5/2020 17:36 | CAP | NUM | SCRL



# Vendor Label Setups



- Scan Labels to Identify Important Data
- Link Scanned Data to Existing Products for GTIN
- Log all Scans to Review Vendor Label Formats and Standards
- Update and Save Delimiters so barcodes can be easily decoded



# Vendor Label Setups



DJF - [MAIL.tshinc.com-BASE.12-GS1.VEND.LABEL.MAINT012\$1]

File Edit Settings Reset Tools Mode Standard Functions Special Functions Refresh Dashboard Help

Shortcuts Application

Scan ID 000109 GS1 VENDOR LABEL MAINTENANCE

History

1.Scan Label

010030002751001921163421994966?1722033110D072998A

010030002751001921163421994966?1722033110D072998A

Terminal

Global Trade Item #	(01)	00300027510019
GS1 Company Prefix		030002
Product Code		HUMALOG
Product Description		HUMALOG
Vendor Item #		VL-7510
Manuf. Code		LILLY
Manuf. Product #		VL-7510
NDC #		0002-7510-01
Batch/Lot #	(10)	D072998A
Expiration Date	(17)	03/31/2022
Serial #	(21)	163421994966
Additional Product Info	(240)	
Variable Count of Items	(30)	

2.Delimiter 063

Please make a selection, OK/END to Save,or Cancel

Products Customers Vendors

MDS Menu Find Tasks Charts Key Indicators

--more-- Ok/End Insert Delete Prev Next Inquiry Cancel Off Popup

The Systems House Operator:SF Ready. 2/5/2020 17:38 CAP NUM SCRL

# HDA EDI856 Track and Trace



- The Detail Purchase Order Inquiry will show the inventory as In Transit and the Expected Deliver Date when information has been received
- Currently, the lot information, including expiration date is sent in the EDI record. In theory, the serial number will also be included
- Alternately Data may be sent via EPCIS



# HDA EDI856 Track and Trace



- The in Data nu
- Customer nu
- All

HYGEN.LIVE - [cloud1.tshinc.com-HYGENTEST-DET.P0011\$1]

cloud1.tshinc.com-HYGENTEST-DET.P0011\$1

File Edit Settings Reset Tools Mode Standard Functions Special Functions Refresh Dashboard Help

Application

Detail Purchase Orders

P/O# **Open** Cardinal Health Ship HyGen Pharmaceuticals, Inc.  
 01021147 2045 Interstate Drive To 8635 154th AVE NE  
 Vend# 362 Lakeland, FL Whse  
 98133 33805 800-299-2462 001 Redmond, WA 98052

Ord Date Due Date PromDate ShipDate DropShip Total Order\$ Total Open\$ Curr  
 07/21/15 07/24/15 07/21/15 07/21/15 ND 8049.20 2573.28 US  
 Agent Req# Spec Inst Confirm#

Ln#	Product Number Description	St Po	Ordered	Open	Received	InTrans Due Date	Cost
1	00093-2049-56 Tolterodine Tart ER 4mg CP 30	EA	2			2 07/24/15	100.00
2	51672-4111-03 Phenytoin Sod ER 100mg CP 1000	EA	6	6		6 07/24/15	213.00
3	00555-9131-67 Ocella™ 3/0.03mg TB 3x28 BARR	EA	4			4 07/24/15	72.00
4	00093-2050-56 Tolterodine Tart ER 2mg CP 30	EA	2			2 07/24/15	100.00

Enter END to exit, PREV PG or NEXT PG

Intransit Print Rcvr# Inq Po Notes Audit Lst Misc Chgs  
 Help Ok/End Insert Delete Prev Next Inquiry Cancel Off Popup

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# HDA EDI856 Track and Trace



- The in Data nu
- Customer nu
- All

Application: cloud1.tshinc.com-HYGENTEST-DET.P0011S1

File Edit Settings Reset Tools Mode Standard Functions Special Functions Refresh Dashboard Help

### Detail Purchase Orders

P/O# **Open** Cardinal Health Ship HyGen Pharmaceuticals, Inc.  
 01021147 2045 Interstate Drive To 8635 154th AVE NE  
 Vend# 362 Lakeland, FL Whse  
 98133 33805 800-299-2462 001 Redmond, WA 98052

Ord Date Due Date PromDate ShipDate DropShip Total Order\$ Total Open\$ Curr  
 07/21/15 07/24/15 07/21/15 07/21/15 ND 8049.20 2573.28 US

Agent Req# Spec Inst Confirm#

Ln#	Product Number	St Po	Ordered	Open	Received	InTrans Due Date	Cost
1	00093-2049-56 Tolterodine Tart ER 4mg CP 30	EA	2			07/24/15	100.00
2	51672-4111-03 Phenytoin Sod ER 100mg CP 1000	EA	6	6		07/24/15	213.00
3	00555-9131-67 Ocella™ 3/0.03mg TB 3x28 BARR	EA	4			07/24/15	72.00
4	00093-2050-56 Tolterodine Tart ER 2mg CP 30	EA	2			07/24/15	100.00

Enter END to exit, PREV PG or NEXT PG

Intransit Print Rcvr# Inq Po Notes Audit Lst Misc Chgs  
 Help Ok/End Insert Delete Prev Next Inquiry Cancel Off Popup

The Systems House Ready 8/4/2015 15:15 CAP NUM SCRL

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# Intransit/Pending Pedigree



- At PO Receiving time, you will select the Intransit record that was created



# Intransit/Pending Pedigree



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cloud1.tshinc.com-HYGENTEST-SSS.PO.RCPT01251

File Edit Settings Reset Tools Mode Standard Functions Special Functions Refresh Dashboard Help

Application

Purchase Order Receiving Detail

Receiver# 002816 Company 01 HyGen Pharmaceuticals, Inc.

Warehouse 001 HyGen Pharmaceuticals Inc

PO Number 021147 Intrans# XXXXXX 08/04/15 Pct Add-On 0.00

Vendor# 362 Cardinal Health Currency US 1.000000 UNITED STATES

LI#	Product	Number	UM	RecStk	UM	Cost	Stk	Location	Loc Qty	C
1	00093-2049-56		EA		EA					PRINT
	51672-4111-03		EA		EA					PRINT
3	00555-9131-67		EA		EA					PRINT
4	00093-2050-56		EA		EA					PRINT

Totals

Frt/Inland Frt	All	Lines	Ocean Frt	Duty	0.00
Misc/Brokerage	0.00	0.00	Insurance	0.00	

Rec Compl Add Costs Pct Add Seq Lines Stk Stat Printrec Locations

Help Ok/End Insert Delete Prev Next Inquiry Cancel Off Popup

The Systems House Ready 8/4/2015 15:20 CAP NUM SCRL



# Intransit/Pending Pedigree



HYGEN.LIVE - [cloud1.tshinc.com-HYGENTEST-SSS.PO.RCPT01251]

cloud1.tshinc.com-HYGENTEST-SSS.PO.RCPT01251

File Edit Settings Reset Tools Mode Standard Functions Special Functions Refresh Dashboard Help

Application

**Purchase Order Receiving Detail**

Receiver# 002816

PO Number 021147

Vendor# 362

Product	Number
00093-2049-56	
1	2
51672-4111-03	
2	6
00555-9131-67	
3	4
00093-2050-56	
4	2
<b>Totals</b>	
Frt/Inland Frt	All
Misc/Brokerage	

**Inquiry List**

Intrn#	Vessel	Bill Lading#	Arrv Dt	Rcvr#
000757		EDI07-29-15	07/21/15	

Products

Customers

Vendors

Lab

PRINT

PRINT

PRINT

PRINT

0.00

Rec Compl Add Costs Pct Add

Help Ok/End Insert

The Systems House Ready 8/4/2015 15:20 CAP NUM SCRL





# Automated Pedigree (T3)



- The Pending Pedigree Selection screen will show for any incoming Pedigree items
- If desired, you can see detailed Pedigree information by clicking on the Pedigree Detail button



# Automated Pedigree (T3)



HYGEN.LIVE - [cloud1.tshinc.com-HYGENTEST-PENDING.PEDIGREE.REVIEW012\$1]

cloud1.tshinc.com-HYGENTEST-PENDING.PEDIGREE.REVIEW012\$1

File Edit Settings Reset Tools Mode Standard Functions Special Functions Refresh Dashboard Help

Application

Pending PEDIGREE Review

Pending Pedigree 000757\*15

1.PO# 021147

2.Product# 00093-2049-56  
Tolterodine Tart ER 4mg CP 30

3.Company 01 HyGen Pharmaceuticals, Inc.

4.Manufacturer

5.NDC# 00093-2049-56

6.Lot#	Lot Qty
C140248	2

ENTER LINE # TO CHANGE,DELETE TO DELETE,0 TO ACCEPT

XXXXXX PAGE 1 OF 2

Add Inbd Add Outbc Add Supp Scroll Dn Scroll Up

Help Ok/End Insert Delete Prev Next Inquiry Cancel Off Popup

The Systems House Ready 8/4/2015 15:25 CAP NUM SCRL

Products Customers Vendors

Shortcuts History Terminal MDS Menu Find Tasks Charts Key Indicators

An illustration of an orange forklift carrying a brown cardboard box on its forks, positioned in the bottom right corner of the slide.

# Po Receipts (Auto Option)



# Po Receipts (Auto Option)



Purchase Order Receiving Detail

Receiver# 008803

Company 01 Base Medical Supply

Warehouse 001 THE SYSTEMS HOUSE, INC.

PO Num

Vendor

Purchase Order Receipts Lot Entry

LN#

Product 103135

LN#	Lot# / Length	Serial#	Location	Quantity	Exp Date
1	H6546-6134				
2					
3					
4					
5					
6					
7					
8					
9					

Enter Serial Number (if applicable).  
Enter AUTO and the system will generate X lines with auto serial numbers where X is the Quantity in the Quantity field.

Frt/Inlar

Misc/Br



# Po Receipts (Auto Option)



Purchase Order Receiving Detail

Receiver# 008803

Company 01 Base Medical Supply

Warehouse 001 THE SYSTEMS HOUSE, INC.

PO Num

Vendor

LN#

Product 103135

Purchase Order Receipts Lot Entry

LN#	Lot# / Length	Serial#	Location	Quantity	Exp Date
1	H6546-6134				
2					
3					
4					
5					
6					
7					
8					
9					

Enter Serial Number (if applicable).  
Enter AUTO and the system will generate X lines with auto serial numbers where X is the Quantity in the Quantity field.

Frt/Inlar

Misc/Br



# Po Receipts (Auto Option)



**Purchase Order Receiving Detail**

Company: 01 Base Medical Supply  
 Receiver#: 008803 Warehouse: 001 THE SYSTEMS HOUSE, INC.

PO Num: [ ] Vendor: [ ]

**Purchase Order Receipts Lot Entry**

Product: 103135

Company: 01 Base Medical Supply  
 Receiver#: 008803 Warehouse: 001 THE SYSTEMS HOUSE, INC.

LN#	Lot# / Length	Serial#	PO Num	Vendor
1	H6546-6134			
2				
3				
4				
5				
6				
7				
8				
9				

Enter Serial Number (if applicable).  
 Enter AUTO and the system will generate X lines  
 numbers where X is the Quantity in the Quantity

**Purchase Order Receipts Lot Entry**

Product: 103135

LN#	Lot# / Length	Serial#	Location	Quantity	Exp Date
1	H6546-6134	1708220000012	A-777	1	12/31/19
2	H6546-6134	1708220000013	A-777	1	12/31/19
3	H6546-6134	1708220000014	A-777	1	12/31/19
4	H6546-6134	1708220000015	A-777	1	12/31/19
5	H6546-6134	1708220000016	A-777	1	12/31/19
6	H6546-6134	1708220000017	A-777	1	12/31/19
7	H6546-6134	1708220000018	A-777	1	12/31/19
8	H6546-6134	1708220000019	A-777	1	12/31/19
9	H6546-6134	1708220000020	A-777	1	12/31/19

Total Lot Quantity: 12

Enter Line# to Change, ADD, or 0 to Accept

# Po Receipts (Auto Option)



**Purchase Order Receiving Detail**

Company: 01 Base Medical Supply  
 Receiver#: 008803 Warehouse: 001 THE SYSTEMS HOUSE, INC.

PO Num: [ ] Vendor: [ ]

**Purchase Order Receipts Lot Entry**

Product: 103135

Company: 01 Base Medical Supply  
 Receiver#: 008803 Warehouse: 001 THE SYSTEMS HOUSE, INC.

LN#	Lot# / Length	Serial#	PO Num	Vendor	LN#	Product	Company	Receiver#	Warehouse
1	H6546-6134				1	103135	01	008803	001
2					2				
3					3				
4					4				
5					5				
6					6				
7					7				
8					8				
9					9				

**Input 'AUTO' create serial numbers**

Enter Serial Number (if applicable).  
 Enter AUTO and the system will generate X lines numbers where X is the Quantity in the Quantity

LN#	Lot# / Length	Serial#	Location	Quantity	Exp Date
1	H6546-6134	1708220000012	A-777	1	12/31/19
2	H6546-6134	1708220000013	A-777	1	12/31/19
3	H6546-6134	1708220000014	A-777	1	12/31/19
4	H6546-6134	1708220000015	A-777	1	12/31/19
5	H6546-6134	1708220000016	A-777	1	12/31/19
6	H6546-6134	1708220000017	A-777	1	12/31/19
7	H6546-6134	1708220000018	A-777	1	12/31/19
8	H6546-6134	1708220000019	A-777	1	12/31/19
9	H6546-6134	1708220000020	A-777	1	12/31/19

Total Lot Quantity: 12

Enter Line# to Change, ADD, or 0 to Accept

# PO Receipts Scan Option



DJF - [MAIL.tshinc.com-BASE.12-SSS.PO.RCPT.LOT.INPUT010\$1]

File Edit Settings Reset Tools Mode Standard Functions Special Functions Refresh Dashboard Help

Application

Purchase Order Receiving Detail  
Receiver# 009282  
Company 01 Base Medical Supply  
Warehouse 001 THE SYSTEMS HOUSE, INC.

PO Number  
Vendor

Purchase Order Receipts Lot Entry  
Receive Qty 10 EA

LN# Product HUMALOG  
NDC 0002-7510-01  
GTIN 00300027510019

LN#	Product	Lot# / Length	Serial#	Location	Quantity	Exp Date
1						
3	D072998A	D072998A	264325097689	A-001	1	03/31/22
2	D072998A	D072998A	140897277636	A-001	1	03/31/22
5	D072185A	D072185A	153938519563	A-001	1	03/31/22
6	D072998A	D072998A	026021294844	A-001	1	03/31/22
3	D072998A	D072998A	163421994966	A-001	1	03/31/22
8	D072185A	D072185A	153976774245	A-001	1	03/31/22
9	D072998A	D072998A	140897269923	A-001	1	03/31/22
4	D072998A	D072998A	025983040994	A-001	1	03/31/22
11						

Total Lot Quantity 10

Enter Line# to Change, ADD, or 0 to Accept

Range --more-- Ok/End Insert Delete Prev Next Inquiry Cancel Off Popup

The Systems House Operator:SF Ready. 2/5/2020 17:58 CAP NUM SCRL



# Verification / Shipping



DJF - [MAIL.tshinc.com-BASE.12-SSS.VE.LOT.ENTRY010S1]

File Edit Settings Reset Tools Mode Standard Functions Special Functions Refresh Dashboard Help

Application

MDS Verification Line Input REL# 01S01303001  
 CO 01 Whse 001 Customer UMC UMC MEDICAL

Verification Lot Entry and Change

Product HUMALOG Release Line # 1

LN#	Lot# / Length	Serial#	Location	Ord QTY	Ship	Cost	A
1	D059525A	027840845521	A-002	1	1	15.0000	
2	D059525A	142377055559	A-002	1	1	15.0000	
3	D072185A	039402241577	A-001	1	1	15.0000	
4	D072185A	153938519563	A-001	1	1	15.0000	
5	D072185A	153976774245	A-001	1	1	15.0000	
6	D072998A	163421994966	A-001	1	1	15.0000	
7							
8							
9							
Total Quantity				6	6		

Enter Line # to Change, 0 to Accept:

The Systems House Operator:SF Ready. 2/5/2020 18:03 CAP NUM SCRL

# Verification / Shipping



DJF - [MAIL.tshinc.com-BASE.12-SSS.VE.LOT.ENTRY010S1]

File Edit Settings Reset Tools Mode Standard Functions Special Functions Refresh Dashboard Help

Application

ORD.01S01303001.PDF - Adobe Acrobat Reader DC

Home Tools ORD.01S01303001... x

on weekends. MULTIPLE LINE

Line	Location	Item Number / Description	Ordered	UM	Shipped	UM	B/O Qty	Unit Price	UM
1 .1	A-002	HUMALOG HUMALOG INSULIN Drug Form#: 222 Lot #: D059525A Serial #: 027840845521 Exp Date: 02/28/22	5	EA	1	EA	0	17.95	EA
1 .2	A-002	HUMALOG HUMALOG INSULIN Drug Form#: 222 Lot #: D059525A Serial #: 142377055559 Exp Date: 02/28/22	5	EA	1	EA	0	17.95	EA
1 .3	A-001	HUMALOG HUMALOG INSULIN Drug Form#: 222 Lot #: D072185A Serial #: 039402241577 Exp Date: 03/31/22	5	EA	1	EA	0	17.95	EA
1 .4	A-001	HUMALOG HUMALOG INSULIN Drug Form#: 222 Lot #: D072185A Serial #: 153938519563	5	EA	1	EA	0	17.95	EA

Product

LN#	Lot# / Length
1	D059525A
2	D059525A
3	D072185A
4	D072185A
5	D072185A
6	D072998A
7	
8	
9	

Enter Line # to C

--more-- Ok/End Insert Delete Prev Next Inquiry Cancel Off Popup

The Systems House Operator:SF Ready. 2/5/2020 18:03 CAP NUM SCRL

# Serialization Recap



- Improved Inventory Accuracy
- Maintain Compliance
- Utilize Standards
- Communicate Better

