



TRACELINK UNIVERSITY

Home

Resources

TraceLink University

Inventory balances (X12)

Inventory balances allow suppliers to communicate with their remote or third-party warehouses about their available and upcoming inventory levels. Inventory balances contain several types of inventory information such as physical product location within a warehouse, product category, and total available inventory. Communicating inventory levels ensures suppliers can keep the required amount of inventory stocked at their locations and enables them to perform other key activities like properly preparing to fulfill large orders. Inventory balances are usually sent at regular intervals or because the buyer requests inventory information.

Suppliers use inventory balances to communicate about available and upcoming inventory levels with their remote or third-party warehouses, or buyers.



Contact your TraceLink Services representative for more information about integrating with this message.

- **Message Type:** MPC_INVENTORY_BALANCE (Inventory Balance)
- **X12 Format:** 846
- **Transform Names:**
 - B2B_EDIX12_846_InventoryBalance_IB_V4
 - B2B_EDIX12_846_InventoryBalance_OB_V2

Guidelines

Input Element	Occurs	Length	Description	Example
ISA	1...1	-	Required. ISA interchange envelope.	-
ISA01	1...1	2/2	Required. Qualifier for authorization control number in ISA02.	00
ISA02	1...1	10/10	Required. Information used for additional identification or authorization of the interchange sender or the data in the interchange/ 10 spaces a valid entry.	-
ISA03	1...1	2/2	Required. Qualifier for security information in ISA04.	00
ISA04	1...1	10/10	Required. Identifies security information about the interchange sender or data	
ISA05	1...1	2/2	Required. Interchange sender partner ID qualifier.	07
ISA06	1...1	15/15	Required. Instance 1 interchange sender identification mapping to fileSenderNumber with party type defined in ISA05.	777776067344
ISA07	1...1	2/2	Required. Interchange receiver partner ID qualifier.	07
ISA08	1...1	15/15	Required. EDI receiver ID mapping to file control header and to ServiceLinkId.	888888404358877
ISA09	1...1	6/6	Required. Interchange date in 6 char YYMMDD format.	231020
ISA10	1...1	4/4	Required. Interchange time in 4 char HHMM format.	1420
ISA11	1...1	1/1	Required. Repetition separator. Delimiter that separates repeated occurrences of a data element or composite data structure. Must be different than the data element separator, component separator, and segment terminator.	:
ISA12	1...1	5/5	Required. Interchange control version number. Valid value is 00401.	00501
ISA13	1...1	9/9	Required. Interchange Control Number for file control header.	000000000619827
ISA14	1...1	1/1	Required. Interchange level acknowledgment requested. Valid values: • 0 - No acknowledgment requested. • 1 - Interchange level acknowledgment requested.	0
ISA15	1...1	1/1	Required. Indicates whether the interchange is for production, test, or information purposes. Valid values: • I - Information • P - Production data • T - Test data	P
ISA16	1...1	1/1	Required. Component element separator. Delimiter that separates data elements within a composite data structure. Must be different than the data element separator and segment terminator.	>
GS	1...1		Required. GS group functional envelope. Child of ISA. Only one GS group expected per interchange.	
GS01	1...1	2/2	Required. GS group function code. The valid value is IB - Inventory Balance.	IB
GS02	1...1	2/15	Required. Application sender's code.	222224043588
GS03	1...1	2/15	Required. Application receiver's code.	TRACELINK
GS04	1...1	8/8	Required. Current date stamp in 8 char X12 date format YYYYMMDD.	231020
GS05	1...1	4/8	Required. Current time stamp in 6 char X12 time format HHMMSS.	142000
GS06	1...1	1/9	Required. Group Control ID Number.	619827
GS07	1...1	1/2	Required. Responsible Agency Code. Valid value is X.	X
GS08	1...1	1/12	Required. X12 message version code. Valid value is 004010.	005010
ST	1...*	-	ST transaction set envelope. Child of GS group. Only one ST transaction expected.	-
ST01	1...1	3/3	Required. Transaction set identifier code.	846
ST02	1...1	4/9	Required. Transaction set ID number. Counter for each ST segment beginning with 1.	1
BIA	1...1	-	Required. Beginning segment for Purchase Order. Child of ST transaction set.	-

Input Element		Occurs	Length	Description	Example
	BIA01	1...1	2/2	Required. Transaction purpose code. Valid values: • 02 - Create • 04 - Change • 01 - Cancel • 00 - Original • 05 - Replace • 08 - Status • 22 - Information	00
	BIA02	1...1	2/2	Required. Inventory Balance type code. Valid value is MM - Manufacturer inventory.	MM
	BIA03	1...1	1/22	Required. Reference Identification.	4506733288
	BIA04	1...1	8/8	Required. Inventory balance creation date in YYYYMMDD X12 date format.	20240520
	BIA05	0...1	4/8	Inventory balance create time in HHMMSSss format.	124019
	CUR	0...1	-	Purchase order currency.	-
	CUR01	1...1	2/3	Required. Entity identifier code identifying an organizational entity, a physical location, property or individual using the identified currency code.	BY
	CUR02	1...1	3/3	Required. ISO currency code for the country whose currency the charges are specified.	USD
	DTM	0...1	-	Shipping date. Child of HL shipment.	-
	DTM01	1...1	3/3	Required. Date or time qualifier identifying shipment date. Valid values: • 090 - Report start. • 091 - Report end . • 999 - Document. • 007 - Effective.	007
	DTM02	0...1	8/8	Date in CCYYMMDD format for shipment or delivery date of sending party.	2024-05-25
	DTM03	0...1	4/8	Time in HHMMSS or HHMM format for shipment or delivery date of sending party.	1230
	REF	0...*	-	Purchase order reference information.	-
	REF01	1...1	2/3	Required. Reference identification qualifier.	DM
	REF02	0...1	1/50	Reference identification for the purchase order as specified by the reference identification qualifier.	009875623
	REF03	0...1	1/80	Description referenced identifier.	-
	N1	0...1	-	Name segment loop for: • Ship to party. • Bill to party. • Supplier party. • Ship from party. • Manufacturer. • Location party. • Warehouse location party. • Distributor location party.	-
	N101	1...1	2/3	Required. Entity identifier code for party identifier and address information for: • ST - Ship to party. • BT - Bill to party • SU - Supplier • SF - Ship from party. • MF- Manufacturer • RL - Reporting location • WH - Warehouse location • DS - Distributor	ST
	N102	0...1	1/60	Name.	Wholesale Inc
	N103	0...1	1/2	Identifier code qualifier. Valid values: • 01 - DUNS • 09 - DUNS+4 • 11 - Drug Enforcement Agency registration number • 21 - Health Industry Number • 91 - Company identifier • 92 - Company location identifier • UL - Global Location Number	11
	N104	0...1	2/80	Ship to party identifier, as qualified by N103.	3333331013655
	N3	0...1	-	Address. Child of Ship to N1 Name segment.	-

Input Element	Occurs	Length	Description	Example
N301	1...1	1/55	Required. Street address 1.	555 Neelan Road
N302	0...1	1/55	Street address 2.	Suite 123
N4	0...1	-	Geographic Location. Child of ship to N1 name segment.	-
N401	0...1	2/30	City name.	Sacramento
N402	0...1	2/2	State or province code. Code (Standard state/province) as defined by appropriate government agency.	CA
N403	0...1	3/15	Postal code. Code defining international postal zone code (zip code for United States).	95833
N404	0...1	2/3	Country code.	US
N405	0...1	1/2	Placeholder for future use of SGLN.	-
N406	0...1	1/30	Origin or Destination Shipping Location ID. SGLN number. NNI will not have sGLNs defined for any of their customers for the 2015 requirement.	-
PER	0...1	-	Administrative communications contact.	-
PER01	1...1	2/2	Required. Contact function code. Valid value is IC - Information contact.	-
PER02	0...1	1/60	Name.	ContactName
PER03	0...1	2/2	Communication number qualifier.	-
PER04	0...1	1/256	Communication number.	-
PER05	0...1	2/2	Communication number qualifier.	-
PER06	0...1	1/256	Communication number.	-
LIN	1...*	-	Inventory balance message line item details.	-
LIN01	0...1	1/20	Inventory Balance line item number.	000010
LIN02	1...1	2/2	Required. Product service ID qualifier mapping from global standards enumeration list. Valid values: <ul style="list-style-type: none"> • PI - Customer • VN - Supplier • UK - GTIN14 • UP - UPC • MF - Manufacturer • FV - CA_DIN • N1 - US_NDC442 • N2 - US_NDC532 • N3 - US_NDC541 • N4 - US_NDC542 • SK - SKU 	VN
LIN03	1...1	1/48	Required. Product or service identifier. Should be the same identifiers that will be used in the invoice.	08202000230
LIN04	0...1	2/2	Product service ID qualifier mapping from global standards enumeration list. Valid values: <ul style="list-style-type: none"> • PI - CUSTOMER • VN - SUPPLIER • UK - GTIN14 • UP - UPC • MF - MANUFACTURER • FV - CA_DIN • N1 - US_NDC442 • N2 - US_NDC532 • N3 - US_NDC541 • N4 - US_NDC542 • SK - SKU • LT - Lot Number 	PI
LIN05	0...1	1/48	Product or service identifier. Should be the same identifiers that will be used in the invoice.	08202000222

Input Element	Occurs	Length	Description	Example
LIN06	0...1	2/2	Product service ID qualifier mapping from global standards enumeration list. Valid values: <ul style="list-style-type: none"> • PI - Customer • VN - Supplier • UK - GTIN14 • UP - UPC • MF - Manufacturer • FV - CA_DIN • N1 - US_NDC442 • N2 - US_NDC532 • N3 - US_NDC541 • N4 - US_NDC542 • SK - SKU • LT - Lot Number 	MF
LIN07	0...1	1/80	Product or service identifier. Should be the same identifiers that will be used in the invoice.	08202000230
LIN08	0...1	2/2	Product service ID qualifier mapping from global standards enumeration list. Valid values: <ul style="list-style-type: none"> • PI - Customer • VN - Supplier • UK - GTIN14 • UP - UPC • MF - Manufacturer • FV - CA_DIN • N1 - US_NDC442 • N2 - US_NDC532 • N3 - US_NDC541 • N4 - US_NDC542 • SK - SKU • LT - Lot Number 	VN
LIN09	0...1	1/48	Product or service identifier. Should be the same identifiers that will be used in the invoice.	08202000230
LIN10	0...1	2/2	Product service ID qualifier mapping from global standards enumeration list. Valid values: <ul style="list-style-type: none"> • PI - Customer • VN - Supplier • UK - GTIN14 • UP - UPC • MF - Manufacturer • FV - CA_DIN • N1 - US_NDC442 • N2 - US_NDC532 • N3 - US_NDC541 • N4 - US_NDC542 • SK - SKU • LT - Lot Number 	VN
LIN11	0...1	1/48	Product or service identifier. Should be the same identifiers that will be used in the invoice.	08202000230
LIN12	0...1	2/2	Product service ID qualifier mapping from global standards enumeration list. Valid values: <ul style="list-style-type: none"> • PI - Customer • VN - Supplier • UK - GTIN14 • UP - UPC • MF - Manufacturer • FV - CA_DIN • N1 - US_NDC442 • N2 - US_NDC532 • N3 - US_NDC541 • N4 - US_NDC542 • SK - SKU • LT - Lot Number 	VN
LIN13	0...1	1/48	Product or service identifier. Should be the same identifiers that will be used in the invoice.	08202000230

Input Element	Occurs	Length	Description	Example
LIN14	0...1	2/2	Product service ID qualifier mapping from global standards enumeration list. Valid values: <ul style="list-style-type: none"> • PI - Customer • VN - Supplier • UK - GTIN14 • UP - UPC • MF - Manufacturer • FV - CA_DIN • N1 - US_NDC442 • N2 - US_NDC532 • N3 - US_NDC541 • N4 - US_NDC542 • SK - SKU 	VN
LIN15	0...1	1/48	Product or service identifier. Should be the same identifiers that will be used in the invoice.	08202000230
LIN16	0...1	2/2	Product service ID qualifier mapping from global standards enumeration list. Valid values: <ul style="list-style-type: none"> • PI - Customer • VN - Supplier • UK - GTIN14 • UP - UPC • MF - Manufacturer • FV - CA_DIN • N1 - US_NDC442 • N2 - US_NDC532 • N3 - US_NDC541 • N4 - US_NDC542 • SK - SKU 	VN
LIN17	0...1	1/48	Product or service identifier. Should be the same identifiers that will be used in the invoice.	08202000230
LIN18	0...1	2/2	Product service ID qualifier mapping from global standards enumeration list. Valid values: <ul style="list-style-type: none"> • PI - Customer • VN - Supplier • UK - GTIN14 • UP - UPC • MF - Manufacturer • FV - CA_DIN • N1 - US_NDC442 • N2 - US_NDC532 • N3 - US_NDC541 • N4 - US_NDC542 • SK - SKU 	VN
LIN19	0...1	1/48	Product or service identifier. Should be the same identifiers that will be used in the invoice.	08202000230
LIN20	0...1	2/2	Product service ID qualifier mapping from global standards enumeration list. Valid values: <ul style="list-style-type: none"> • PI - Customer • VN - Supplier • UK - GTIN14 • UP - UPC • MF - Manufacturer • FV - CA_DIN • N1 - US_NDC442 • N2 - US_NDC532 • N3 - US_NDC541 • N4 - US_NDC542 • SK - SKU 	VN
LIN21	0...1	1/48	Product or service identifier. Should be the same identifiers that will be used in the invoice.	08202000230

Input Element	Occurs	Length	Description	Example
LIN22	0...1	2/2	Product service ID qualifier mapping from global standards enumeration list. Valid values: • PI - Customer • VN - Supplier • UK - GTIN14 • UP - UPC • MF - Manufacturer • FV - CA_DIN • N1 - US_NDC442 • N2 - US_NDC532 • N3 - US_NDC541 • N4 - US_NDC542 • SK - SKU	VN
LIN23	0...1	1/48	Product or service identifier. Should be the same identifiers that will be used in the invoice.	08202000230
PID	0...200	-	SN1- Item Details. Child of HL level Item.	-
PID01	1...1	1/1	Required. Item description type. The valid value is F -Free from.	F
PID05	0...1	1/80	Item description.	Generic acetomedecine
DTM	0...10	-	DTM-Date or time reference.	-
DTM01	1...1	3/3	Required. Date or time qualifier. The valid value is 036 - Expiration.	036
DTM02	0...1	8/8	Date.	20250501
DTM03	0...1	4/8	Time.	-
DTM	0...10	-	DTM-Date or time reference.	-
DTM01	1...1	3/3	Required. Date or time qualifier. Valid values: • 007 - Effective • 018 - Availability • 036 - Expiration • 405 - Manufacturing	018
DTM02	0...1	8/8	Date.	20250501
DTM03	0...1	4/8	Time.	-
SDQ	0...500	-	Destination quantity.	-
SDQ01	1...1	2/2	Required. Unit or basis for measurement code.	EA
SDQ02	0...1	1/2	Identification code qualifier.	92
SDQ03	1...1	2/80	Required. Location identifier value for target location.	'8888882028677
SDQ04	1...1	1/15	Required. Quantity of product to be sent to identified location.	125
SDQ05	0...1	2/80	Location identifier value for target location.	8888882028677
SDQ06	0...1	1/15	Quantity of product to be sent to identified location.	125
SDQ07	0...1	2/80	Location identifier value for target location.	8888882028677
SDQ08	0...1	1/15	Quantity of product to be sent to identified location.	125
SDQ09	0...1	2/80	Location identifier value for target location.	8888882028677
SDQ10	0...1	1/15	Quantity of product to be sent to identified location.	125
SDQ11	0...1	2/80	Location identifier value for target location.	8888882028677
SDQ12	0...1	1/15	Quantity of product to be sent to identified location.	125
SDQ13	0...1	2/80	Location identifier value for target location.	8888882028677
SDQ14	0...1	1/15	Quantity of product to be sent to identified location.	125
SDQ15	0...1	2/80	Location identifier value for target location.	8888882028677
SDQ16	0...1	1/15	Quantity of product to be sent to identified location.	125
SDQ17	0...1	2/80	Location identifier value for target location.	8888882028677
SDQ18	0...1	1/15	Quantity of product to be sent to identified location.	125
SDQ19	0...1	2/80	Location identifier value for target location.	8888882028677
SDQ20	0...1	1/15	Quantity of product to be sent to identified location.	125
SDQ21	0...1	2/80	Location identifier value for target location.	8888882028677
SDQ22	0...1	1/15	Quantity of product to be sent to identified location.	125
QTY	0...99	-	Quantity information.	-

Input Element				Occurs	Length	Description	Example
			QTY01	1...1	2/2	Required. Type of Quantity recorded. Valid values: • 33 - Item • 17 - On hand • QH - On hold • 63 - On order Inspection value is not supported.	33
			QTY02	0...1	1/15	Quantity.	50
			QTY03	0...1	-	Composite unit of measure.	-

Input Element	Occurs	Length	Description	Example
QTY03.1	1...1	1/2	<p>Required. Unit or basis for measurement code.</p> <p>Valid Values</p> <ul style="list-style-type: none"> • CA - Case. • CC - Cubic Centimeter. • CF - Cubic Feet. • CG - Card, Blister. • CI - Cubic Inches. • CL - Cylinder. • CM - Centimeter. • CN - Can. • CP - Crate. • CQ - Cartridge. • CR - Cubic Meters. • CT - Carton. • DA - Day. • DI - Dispenser. • DK - Kilometers. • DL - Deciliter. • DM - Decimeter. • DR - Drum. • DS - Display. • DZ - Dozen. • EA - Each. • FO - Fluid Ounce. • FT - Foot. • GA - Gallon. • GL - Gram/liter. • GR - Gram. • GS - Gross. • H4 - Hectoliter. • HF - Hundred Feet. • HR - Hours. • IN - Inch. • K6 - Kiloliters. • KG - Kilogram. • KT - Kit. • LB - Pounds. • LF - Linear Foot. • LO - Lot (unit of procurement). • LT - Liter. • LY - Linear Yard. • MC - Microgram. • ME - Milligram. • ML - Milliliter. • MM - Millimeter. • M0 - Months. • MR - Meter. • OZ - Ounces. • PC - Piece. • PF - Pallet. • PK - Package. • PR - Pair. • PT - Pint. • QT - Quart. • RL - Roll. • SC - Square Centimeter. • SF - Months. • SH - Sheet. • SI - Square Inch. • SM - Square Meter. • ST - Set. • SY - Square Yard. • T3 - Thousand Pieces. • TB - Tube. • TH - Thousand. • TY - Tray. • U2 - Tablet. • UM - Million. • UN - Unit. • V2 - Pouch. • VI - Vial. • WK - Week. • YD - Yard. • YR - Years. 	EA

Input Element	Occurs	Length	Description	Example
QTY04	0...1	1/30	Free-form information.	-
SE	1...1-	-	Required. ST ... SE transaction set trailer envelope. Child of GS group. Only one ST transaction expected.	-
SE01	1...1	1/10	Required. Total count of segments in ST ... SE transaction set including ST and SE segments.	10
SE02	1...1	4/9	Required. Transaction set control number.	1
GE	1...1	-	Required. GS ... GE functional group trailer envelope. Child of ISA interchange. Only one GS group expected.	-
GE01	1...1	1/6	Required. Number of transaction sets in functional group.	5
GE02	1...1	1/9	Required. Functional group control number.	619827
IEA	1...1	-	Required. ISA ... IEA interchange control trailer envelope. Only one interchange expected per transmission.-	-
IEA01	1...1	1/5	Required. Number of functional groups in interchange.	1
IEA02	1...1	9/9	Required. Interchange control number.	000000000619827

Example

```

ISA*00*                *00*                *01*SenderValue      *07*Receiver
*230901*1123*U*00401*000000001*0*P*:~
GS*IB*SenderValue*Receiver*20230901*11231022*1*X*004010~
ST*846*0001~
BIA*00*MM*1574578220*20240301*122021~
CUR*BY*USD~
DTM*007*20240101*124019~
REF*DM*009875623*test description~
N1*BT*BillTo*9*DUNS4001000286~
N3*Stella Maris*Condado Ave 14~
N4*San Juan*PR*00902*US~
PER*AJ*BillToContact*TE*BillToPhone*EM*BillToEmail~
N1*SU*SUPPLIER/VENDOR (LF/SU)*11*DEA001000286~
N3*Stella Maris*Condado Ave 14~
N4*San Juan*PR*00902*US~
PER*AJ*SUContact*TE*SUPhone*EM*SUEmail~
N1*MF*manufactureBusiness*11*DEA006009000~
N3*address1*address2~
N4*newyork*XX*462016*FI~
PER*AJ*s129*TE*s130*EM*s128~
N1*ST*ShipTo*92*COMPSITE4562~
N3*ShipTo Address 1*ShipTo Address 2~
N4*ShipTo City*YY*4542ShipTo-&Pst*JP*DE*1234~
PER*AJ*ShipToContact*TE*ShipToPhone*EM*ShipToEmail~
N1*Sf*ShipFrom*1*DUNS0010002869028~
N3*Stella Maris*Condado Ave 14~
N4*San Juan*PR*00902*US~
PER*AJ*SfContact*TE*SfPhone*EM*SfEmail~
LIN*0001*VN*SUPPLIER_VN*MF*MANUFACTURER-MF*PJ*20221211*SK*SKU-
SK*UK*GTIN14-UK*UP*UPC-UP*FV*CA_DIN-FV*N1*NDC442-N1*N2*NDC532-
N2*N3*NDC541-N3*LT*LT-54745~
PID*F***Name1~
DTM*036*20260111*124019~
DTM*007*20240222*124029~

```

SDQ*EA*UL*STR01*101*STR02*102*STR03*103*STR04*104*STR05*105*STR06*106*
STR07*107*STR08*108*STR09*109*STR10*110~
QTY*33*152002*EA*ITEM QUANTITY test info~
QTY*74*1500*BX*STORAGE LOCATION test info~
SE*33*0001~
GE*1*1~
IEA*1*000000001~

 Review TraceLink's **API: Terms of Use**

Related Content



Forecast plan (IDoc)

Forecasting APIs allow companies to exchange data about anticipated product demand and supply availability with upstream supply chain Partners without giving these Partners access to their serialization system of record.

[View More](#)



Forecast plan (X12)

Forecasting APIs allow companies to exchange data about anticipated product demand and supply availability with upstream supply chain Partners without giving these Partners access to their serialization system of record.

[View More](#)



Forecast plan response (IDoc)

Forecasting APIs allow companies to exchange data about anticipated product demand and supply availability with downstream supply chain Partners without giving these Partners access to their serialization system of record.

[View More](#)