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TraceLink University

Inventory updates (X12)

Inventory updates allow suppliers to communicate with their remote or third-party warehouses, 3PLs, or CMOs about changes to the available inventory for specific products. Communicating inventory quantity or status updates allows companies to maintain accurate inventory records, which ensures compliance with government regulations, optimizes warehouse operations, reduces inefficiencies, and prevents stockouts or overstocks. Companies are also able to make informed decisions regarding procurement, production, and inventory management strategies.

Suppliers use inventory updates to communicate information about changes in inventory quantity or status with their remote or third-party warehouses or CMOs.



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

- **Message Type:** MPC_INVENTORY_UPDATE (Inventory Update)
- **X12 Format:** 947
- **Transform Names:**
 - B2B_EDI_X12_947_InventoryUpdate_IB_V3
 - B2B_EDI_X12_947_InventoryUpdate_OB_V1

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. Valid values: • 01 - DUNS • 07- GLN • 08 - UCC EDI communications ID (GLN?) • 11 - DEA • 16 - DUNS+4 • 20 - HIN • ZZ - Mutually defined	07
ISA06	1...1	15/15	Required. Interchange sender identification mapping to fileSenderNumber with party type defined in ISA05.	7777776067344

Input Element	Occurs	Length	Description	Example
ISA07	1...1	2/2	Required. Interchange receiver partner ID qualifier. Valid values: <ul style="list-style-type: none"> • 01 - DUNS • 07- GLN • 08 - UCC EDI communications ID (GLN?) • 11 - DEA • 16 - DUNS+4 • 20 - HIN • ZZ - Mutually defined 	01
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. This value is dependent on X12 version. - Version 4012 and earlier, this is the interchange control standards identifier. Valid value is U, version 4020 and later, this is the repetition separator, a delimiter that separates repeated occurrences of a data element or composite data structure, which must be different than the data element separator, component separator, and segment terminator.	^
ISA12	1...1	5/5	Required. Interchange control version number. This could be any X12 version.	00501

Input Element		Occurs	Length	Description	Example
	ISA13	1...1	9/9	Required. Interchange Control Number mapping to file control header.	0000000000619827
	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...*	-	GS group functional envelope. Child of ISA. Only one GS group expected per interchange.	-
	GS01	1...1	2/2	Required. GS group function code. Valid value is RE - WHS stock transfer receipt advice.	RE
	GS02	1...1	2/15	Required. Application sender's code.	2222224043588
	GS03	1...1	2/15	Required. Application receiver's code.	TRACELINK

Input Element		Occurs	Length	Description	Example
	GS04	1...1	8/8	Required. Current date stamp in 8 char X12 date format YYYYMMDD.	20301020
	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 values: • T = Transportation data coordinating committee (TDCC). • X = Accredited standards committee X12.	X
	GS08	1...1	1/12	Required. X12 message version code. Valid value is 005010.	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.	947
	ST02	1...1	4/9	Required. Transaction set ID number. Counter for each ST segment beginning with 1.	0001
	W15	1...1	-	Required. Warehouse Adjustment Notification.	-
	W1501	1...1	8/8	Required. Date for inventory update. Required value.	20240329
	W1502	0...1	1/22	Adjustment Number. Identification assigned to an inventory level or status adjustment.	4500003288
	W1503	0...1	1/22	Update (adjustment) number assigned to an inventory level or status update.	123456

Input Element		Occurs	Length	Description	Example
	W1504	0...1	2/2	Transaction Set Purpose Code. Valid values: <ul style="list-style-type: none"> • 00 - Original • 01 - Cancel • 02 - Create • 04 - Change • 05 - Replace • 08 - Status • 11 - Response • 16 - Proposed • 22 - Information 	00
	W1505	0...1	2/2	Transaction type code. Valid value is IA - Inventory.	IA
	W1506	1...1	2-Jan	Required. Action code.	20240329
	N1	0...1	-	Name segment loop for: <ul style="list-style-type: none"> • Buyer (Customer) party. • Supplier party • Ship to party 	-
	N101	1...1	2/3	Required. Entity qualifier for the buyer party identifier and address information. Valid values: <ul style="list-style-type: none"> • BY - Buyer • SU - Supplier. • ST - Ship to party 	BY
	N102	1...1	1/60	Required. Name.	Pharma customer
	N103	1...1	1/2	Required. Identifier code qualifier. Valid values: <ul style="list-style-type: none"> • 1 - DUNS. • 9 - DUNS+4. • 11 - Drug enforcement agency registration number. • 21 - Health industry number. • 91 - Company identifier. • 92 - Company location identifier . • UL - Global location number. 	UL

Input Element		Occurs	Length	Description	Example
	N104	1...1	2/80	Required. Instance 1 buyer party identifier as qualified by N103 mapping to companyIdentifierValue.	3333331013655
	N3	0...1	-	N3: Address: Child of warehouse party N1 name segment.	-
	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	-	N4: Geographic Location. Child of warehouse party N1 name segment.	-
	N401	1...1	2/30	Required. City name.	Sacramento
	N402	1...1	2/2	Required. State or province code. Code (Standard state/province) as defined by appropriate government agency.	CA
	N403	1...1	3/15	Required. Postal code. Code defining international postal zone code excluding punctuation and blanks.	95833
	N404	1...1	2/3	Required. Country code.	US
	PER	0...6	-	Contact Information.	-
	PER01	1...1	2/2	Required. Contact function code identifying major duty or responsibility of person or group named as contact. Valid value is AJ - Primary contact.	AJ
	PER02	1...1	1/40	Required. Name of the contact person responsible for authenticating the pedigree information.	John Smith

Input Element			Occurs	Length	Description	Example
		PER03	1...1	2/2	Required. Communication number qualifier identifying the contact person's telephone number or email address. Valid values: • TE - Telephone number • EM - Email address	TE
		PER04	1...1	11/20	Required. Communication number: Telephone number of the contact person expected in this field.	+1.516.747.6849
		PER04	1...1	11/20	Required. Communication number: Email address of the contact person.	jsmith@manufac.com
		PER05	1...1	2/2	Required. Communication number qualifier identifying the contact person's telephone number or email address. Valid values: • TE - Telephone number. • EM - Email address.	EM
		PER06	1...1	6/50	Required. Communication number : Email address for the contact person expected in this field.	jsmith@manufac.com
		PER06	1...1	6/50	Required. Communication number: Telephone number of the contact person.	+1.516.747.6849
		N9	0...*	-	Extended reference information.	-
		N901	0...1	2/3	Reference identifier qualifier. Valid value is BM - BOL.	BM
		N902	0...1	1/50	Reference information.	012547
		N903	0...1	1/45	Free from description.	-

Input Element			Occurs	Length	Description	Example
		N904	1...1	8/8	Required. Date.	20240329
		G61	0...3	-	Contact.	-
		G6101	1...1	2/2	Required. Contact function code. Valid value is IC - Information contact.	-
		G6102	1...1	1/60	Required. Name.	-
		G6103	0...1	2/2	Communication number qualifier. Valid values: • FX - Fax • TE - Telephone	-
		G6104	0...1	1/256	Communication Number	-
		G6105	0...1	1/20	Contact Inquiry Reference	-
		G62	0...10	-	Mapping for expiration date.	-
		G6201	1...1	3/3	Required. Qualifier identifying expiration date. Valid value is 36 - Expiration.	36
		G6202	0...1	8/8	Date value in date format YYYYMMDD	20240329
		G62	0...10	-	Mapping for manufacturing date.	-
		G6201	1...1	3/3	Required. Qualifier identifying manufacturing date. Valid value is BL - Manufacturing.	BL
		G6202	0...1	8/8	Date value in date format YYYYMMDD.	20240329
		NTE	0...20	-	Note or special instruction.	-
		NTE01	0...1	3/3	Note reference code. Valid values: • ADD - Additional Information • AFA - Description	ADD
		NTE02	0...1	1/80	Description.	-
		W19	0...*	-	Warehouse update item detail.	-

Input Element		Occurs	Length	Description	Example
	W1901	1...1	2/2	<p>Required. Quantity or adjustment reason code.</p> <p>Valid values:</p> <ul style="list-style-type: none"> • 56 - Goods receipt. • 05 - Goods receipt to valuated blocked stock. • 55 - Goods receipt from valuated blocked stock. • 06 - Goods issue. • AK - Plant to plant transfer. • 88 - Transfer from Quality to unrestricted. • 08 - Reverse transfer from Quality to unrestricted. • CR - Customer return. • AC - Transfer to subcontractor stock from unrestricted. • 06 AND W1916 - (DM) Transfer from unrestricted to scrap. • 88 and W1916 - (DM) Transfer from Quality to scrap. • BT - Initial entry of stock receipt. <p>Note: Each of these, except 88 and 08, can be either a posting or a reversal based on whether the quantity in W1902 is a positive (posting) or negative (reversal) value.</p>	CR
	W1902	1...1	1/10	<p>Required. Credit and debit quantity.</p>	15

Input Element		Occurs	Length	Description	Example
	W1903	1...1	2/2	Required. Unit of measure for quantity. Quantity UOM's: <ul style="list-style-type: none"> • CA - Case • CP - Crate • CT - Carton • DS - Display • DZ - Dozen • EA - Each • PC - Piece • PF - Pallet • PK - Package • T3 - Thousand Pieces • TH - Thousand • TY - Tray • UN - Unit 	EA
	W1904	0...1	12/12	U.P.C Case code.	-
	W1905	1...1	2/2	Required. Product or service ID qualifier. Valid values: <ul style="list-style-type: none"> • BP - Buyer • CB - Buycatalog • EN - EAN2551 • FV - CA_DIN • IN - BuyerItem • MF - Manufacturer • N1 - US_NDC442 • N2 - US_NDC532 • N3 - US_NDC541 • N4 - US_NDC542 - • NH - Nationalhealth • PI - Customer • SK - SKU • UJ - Packageupc • UK - GTIN14 • UP - GTIN12 • UX - UPC • VC - Vendorcatalog • VN - Vendor 	BP
	W1906	1...1	1/48	Required. Product or service identifier value as qualifier by W1905.	100021
	W1907	0...1	2/2	Product or service ID qualifier.	-
	W1908	0...1	1/48	Product or service identifier value.	-
	W1909	0...1	1/12	Warehouse lot number.	WHLOT123
	W1910	0...1	1/10	Weight.	-

Input Element		Occurs	Length	Description	Example
	W1911	0...1	1/2	Weight qualifier.	-
	W1912	0...1	1/1	Weight unit code.	-
	W1913	0...1	1/10	Weight.	-
	W1914	0...1	1/2	Weight qualifier.	-
	W1915	0...1	1/1	Weight unit code.	-
	W1916	0...1	1/2	Inventory transaction type code.	DM
	W1917	0...1	2/2	Product or service qualifier. Valid value is W2 - Work unit number.	VN
	W1918	0...1	1/48	Product or service identifier value as qualifier by W1917.	1000818
	G69	0...*	-	Line item detail description.	-
	G6901	1...1	1/45	Required. Free from description.	-
	N9	0...*	-	Mapping to lot number.	-
	N901	1...1	2/3	Required. Extended reference qualifier for mapping to lot number. Valid value is LT - Lot number.	LT
	N902	1...1	1/50	Required. Lot number.	LT102521
	N9	0...*	-	Mapping to plant identifier.	-
	N901	0...1	2/3	Extended reference qualifier for mapping to plant identifier. Valid value is PE - Plant Identifier.	PE
	N902	0...1	1/50	Plant identifier value.	012547
	N9	0...*	-	Mapping to storage location.	-
	N901	0...1	2/3	Extended reference qualifier for mapping to storage location. Valid value is WS - Warehouse location.	WS
	N902	0...1	1/50	Reference Information	12345
	N9	0...*	-	Mapping directions for document identifiers that inventory posts against.	-

Input Element			Occurs	Length	Description	Example
		N901	0...1	2/3	Reference identifier qualifier. Valid values: PO - Purchase order. WO - Work order. DO - Delivery. RSN - Reservation.	PO
		N902	0...1	1/50	Inventory update document identifier.	012547
		N903	0...1	1/45	Line item number for the referenced document in N902.	10
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.	0001
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*Author1234*00*Security00*07*7777776067344
*01*888888404358877*231020*1420*^*00501*123456789*0*P*>
GS*RE*222224043588*TRACELINK*20301020*142000*619827*X*005010
ST*947*0001
W15*20240329*4500003288*123456*00*IA*14
N1*BY*Pharma customer*UL*3333331013655
N3*555 Neelan Road*Suite 123
N4*Sacramento*CA*95833*US
PER*AJ*John Smith*TE*+1.516.747.6849*EM*jsmith@manufac.com
N1*SU*Pharma supplier*UL*8568745
N3*Address_1*Address_2
N4*City_SU*SU*95833*US
PER*AJ*John Smith*EM*jsmith@manufac.com*TE*+1.516.747.6849
N1*ST*Wholesale Inc*11*3333331013655
N3*555 Neelan Road*Suite 123
N4*Sacramento*CA*95833*US
PER*AJ*John Smith*TE*+1.516.747.6849*EM*jsmith@manufac.com
N9*BM*012547
G62*36*20240322
G62*BL*20240321
W19*05*100*EA**BP*100021***WHL0T123*****IT
G69*free form description goes here
N9*LT*LT102521
N9*PE*012547
N9*WS*12345
N9*P0*PurchaseOrder*10
N9*W0*WorkOrder*20
N9*D0*Delivery*30
N9*RSN*Reservation*40
SE*27*0001
GE*1*619827
IEA*1*123456789



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