856 Ship Notice/Manifest - mpXML with Batch Level Reporting

UCS / mpXML (Meat & Poultry) Guideline

Version: 005050UCS Final

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Publication:	**3/31/2010**
Notes:	**This guideline may be used with prior X12 versions.**

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856 Ship Notice/Manifest - Meat & Poultry

Functional Group=SH

Purpose: This X12 Transaction Set contains the format and establishes the data contents of the Ship Notice/Manifest Transaction Set (856) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to list the contents of a shipment of goods as well as additional information relating to the shipment, such as order information, product description, physical characteristics, type of packaging, marking, carrier information, and configuration of goods within the transportation equipment. The transaction set enables the sender to describe the contents and configuration of a shipment in various levels of detail and provides an ordered flexibility to convey information.The sender of this transaction is the organization responsible for detailing and communicating the contents of a shipment, or shipments, to one or more receivers of the transaction set. The receiver of this transaction set can be any organization having an interest in the contents of a shipment or information about the contents of a shipment.

This document represents the work of mpXML, for the meat and poultry industry.

This document handles:
(1) a 'simple' business scenario between a Supplier and a Retailer,
(2) with or without Data Synchronization and a
(3) cross-dock scenario.

There is an assumption that the trade parties have exchanged sufficient identifying information about the products offered for sale.

March 1, 2010:

The mpXML 856 guideline is revised to include a Batchand Item HL.

The following are included in support ofa Batch HL.

- ***BSN05 value of 'ZZZZ' is included to handle Batch levelreporting, following the Pack level:***
  Shipment / Order / Tare / Pack / Batch / Item.
- ***Shipment, Order and Pack levels are mandatory in thestructure, as is at least one occurrence of the Batch HL.***
  HL03 value of 'ZZ' is included to designate the Batch HL.
  (New codes are being requested from X12.)

Heading:

	Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage	Page
	0100	ST	Transaction Set Header	M	1			Must use	14
	0200	BSN	Beginning Segment for Ship Notice	M	1			Must use	15
*	0400	DTM	Date/Time Reference	O	10				N/A

Detail:

	Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage	Page
	LOOP ID - HL					**200000**	**C2/0100L**		17
	0100	HL	Hierarchical Level	M	1		C2/0100	Must use	18
*	0200	LIN	Item Identification	O	1				N/A
*	0300	SN1	Item Detail (Shipment)	O	1				N/A
*	0400	SLN	Subline Item Detail	O	1000				N/A
*	0500	PRF	Purchase Order Reference	O	1				N/A
*	0600	PO4	Item Physical Details	O	1				N/A

	Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage	Page
*	0700	PID	Product/Item Description	O	200				N/A
*	0800	MEA	Measurements	O	40				N/A
*	0900	PWK	Paperwork	O	25				N/A
*	1000	PKG	Marking, Packaging, Loading	O	25				N/A
	1100	TD1	Carrier Details (Quantity and Weight)	O	20			Used	19
	1200	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12			Used	21
	*** LOOP ID - TD3**					**12**			N/A
	1300	TD3	Carrier Details (Equipment)	O	1				N/A
*	1350	AT9	Trailer or Container Dimension and Weight	O	1				N/A
*	1400	TD4	Carrier Details (Special Handling, or Hazardous Materials, or Both)	O	5				N/A
*	1450	TSD	Trailer Shipment Details	O	1				N/A
	1500	REF	Reference Information	O	>1			Used	23
*	1510	PER	Administrative Communications Contact	O	3				N/A
	*** LOOP ID - LH1**					**100**			N/A
*	1520	LH1	Hazardous Identification Information	O	1				N/A
*	1530	LH2	Hazardous Classification Information	O	4				N/A
*	1540	LH3	Hazardous Material Shipping Name Information	O	12				N/A
*	1550	LFH	Free-form Hazardous Material Information	O	20				N/A
*	1560	LEP	EPA Required Data	O	>1				N/A
*	1570	LH4	Canadian Dangerous Requirements	O	4				N/A
*	1580	LHT	Transborder Hazardous Requirements	O	3				N/A
*	1590	LHR	Hazardous Material Identifying Reference Numbers	O	10				N/A
*	1600	PER	Administrative Communications Contact	O	5				N/A
*	1610	LHE	Empty Equipment Hazardous Material Information	O	1				N/A
	*** LOOP ID - CLD**					**200**			N/A
*	1700	CLD	Load Detail	O	1				N/A
*	1800	REF	Reference Information	O	200				N/A
*	1850	DTP	Date or Time or Period	O	1				N/A
	1900	MAN	Marks and Numbers Information	O	>1			Used	24
	2000	DTM	Date/Time Reference	O	10			Must use	25

	Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage	Page
*	2100	FOB	F.O.B. Related Instructions	O	1				N/A
*	2150	PAL	Pallet Type and Load Characteristics	O	1				N/A
	LOOP ID - N1					**200**			26
	2200	N1	Party Identification	O	1			Must use	27
	2300	N2	Additional Name Information	O	2			Used	28
	2400	N3	Party Location	O	2			Used	29
	2500	N4	Geographic Location	O	1			Used	30
*	2600	REF	Reference Information	O	12				N/A
*	2700	PER	Administrative Communications Contact	O	3				N/A
*	2800	FOB	F.O.B. Related Instructions	O	1				N/A
*	2900	SDQ	Destination Quantity	O	50				N/A
*	3000	ETD	Excess Transportation Detail	O	1				N/A
*	3100	CUR	Currency	O	1				N/A
	*** LOOP ID - SAC**					**>1**			N/A
*	3200	SAC	Service, Promotion, Allowance, or Charge Information	O	1				N/A
*	3250	CUR	Currency	O	1				N/A
*	3300	GF	Furnished Goods and Services	O	1				N/A
*	3350	YNQ	Yes/No Question	O	10				N/A
	*** LOOP ID - LM**					**10**			N/A
*	3400	LM	Code Source Information	O	1				N/A
*	3500	LQ	Industry Code Identification	M	100				N/A
	*** LOOP ID - V1**					**>1**			N/A
*	3600	V1	Vessel Identification	O	1				N/A
*	3700	R4	Port or Terminal	O	>1				N/A
*	3800	DTM	Date/Time Reference	O	>1				N/A
	LOOP ID - HL					**200000**	**C2/0100L**		31
	0100	HL	Hierarchical Level - Order	M	1		C2/0100	Must use	32
*	0200	LIN	Item Identification	O	1				N/A
*	0300	SN1	Item Detail (Shipment)	O	1				N/A
*	0400	SLN	Subline Item Detail	O	1000				N/A
	0500	PRF	Purchase Order Reference	O	1			Must use	33
*	0600	PO4	Item Physical Details	O	1				N/A
*	0700	PID	Product/Item Description	O	200				N/A
*	0800	MEA	Measurements	O	40				N/A
*	0900	PWK	Paperwork	O	25				N/A
*	1000	PKG	Marking, Packaging, Loading	O	25				N/A

	Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage	Page
*	1100	TD1	Carrier Details (Quantity and Weight)	O	20				N/A
	1200	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12			Used	34
	*** LOOP ID - TD3**					**12**			N/A
*	1300	TD3	Carrier Details (Equipment)	O	1				N/A
*	1350	AT9	Trailer or Container Dimension and Weight	O	1				N/A
*	1400	TD4	Carrier Details (Special Handling, or Hazardous Materials, or Both)	O	5				N/A
*	1450	TSD	Trailer Shipment Details	O	1				N/A
	1500	REF	Reference Information	O	>1			Used	35
*	1510	PER	Administrative Communications Contact	O	3				N/A
	*** LOOP ID - LH1**					**100**			N/A
*	1520	LH1	Hazardous Identification Information	O	1				N/A
*	1530	LH2	Hazardous Classification Information	O	4				N/A
*	1540	LH3	Hazardous Material Shipping Name Information	O	12				N/A
*	1550	LFH	Free-form Hazardous Material Information	O	20				N/A
*	1560	LEP	EPA Required Data	O	>1				N/A
*	1570	LH4	Canadian Dangerous Requirements	O	4				N/A
*	1580	LHT	Transborder Hazardous Requirements	O	3				N/A
*	1590	LHR	Hazardous Material Identifying Reference Numbers	O	10				N/A
*	1600	PER	Administrative Communications Contact	O	5				N/A
*	1610	LHE	Empty Equipment Hazardous Material Information	O	1				N/A
	*** LOOP ID - CLD**					**200**			N/A
*	1700	CLD	Load Detail	O	1				N/A
*	1800	REF	Reference Information	O	200				N/A
*	1850	DTP	Date or Time or Period	O	1				N/A
*	1900	MAN	Marks and Numbers Information	O	>1				N/A
*	2000	DTM	Date/Time Reference	O	10				N/A
*	2100	FOB	F.O.B. Related Instructions	O	1				N/A
*	2150	PAL	Pallet Type and Load Characteristics	O	1				N/A
	LOOP ID - N1					**200**			36

	Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage	Page
	2200	N1	Party Identification	O	1			Used	37
	2300	N2	Additional Name Information	O	2			Used	39
	2400	N3	Party Location	O	2			Used	40
	2500	N4	Geographic Location	O	1			Used	41
*	2600	REF	Reference Information	O	12				N/A
*	2700	PER	Administrative Communications Contact	O	3				N/A
*	2800	FOB	F.O.B. Related Instructions	O	1				N/A
*	2900	SDQ	Destination Quantity	O	50				N/A
*	3000	ETD	Excess Transportation Detail	O	1				N/A
*	3100	CUR	Currency	O	1				N/A
	*** LOOP ID - SAC**					**>1**			N/A
*	3200	SAC	Service, Promotion, Allowance, or Charge Information	O	1				N/A
*	3250	CUR	Currency	O	1				N/A
*	3300	GF	Furnished Goods and Services	O	1				N/A
*	3350	YNQ	Yes/No Question	O	10				N/A
	*** LOOP ID - LM**					**10**			N/A
*	3400	LM	Code Source Information	O	1				N/A
*	3500	LQ	Industry Code Identification	M	100				N/A
	*** LOOP ID - V1**					**>1**			N/A
*	3600	V1	Vessel Identification	O	1				N/A
*	3700	R4	Port or Terminal	O	>1				N/A
*	3800	DTM	Date/Time Reference	O	>1				N/A
	LOOP ID - HL					**200000**	**C2/0100L**		42
	0100	HL	Hierarchical Level - Tare	O	1		C2/0100	Used	43
	0200	LIN	Item Identification	O	1			Used	44
	0300	SN1	Item Detail (Shipment)	O	1			Used	48
*	0400	SLN	Subline Item Detail	O	1000				N/A
*	0500	PRF	Purchase Order Reference	O	1				N/A
*	0600	PO4	Item Physical Details	O	1				N/A
	0700	PID	Product/Item Description	O	200			Used	49
*	0800	MEA	Measurements	O	40				N/A
*	0900	PWK	Paperwork	O	25				N/A
*	1000	PKG	Marking, Packaging, Loading	O	25				N/A
	1100	TD1	Carrier Details (Quantity and Weight)	O	20			Used	51
*	1200	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12				N/A
	*** LOOP ID - TD3**					**12**			N/A

	Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage	Page
*	1300	TD3	Carrier Details (Equipment)	O	1				N/A
*	1350	AT9	Trailer or Container Dimension and Weight	O	1				N/A
*	1400	TD4	Carrier Details (Special Handling, or Hazardous Materials, or Both)	O	5				N/A
*	1450	TSD	Trailer Shipment Details	O	1				N/A
*	1500	REF	Reference Information	O	>1				N/A
*	1510	PER	Administrative Communications Contact	O	3				N/A
	*** LOOP ID - LH1**					**100**			N/A
*	1520	LH1	Hazardous Identification Information	O	1				N/A
*	1530	LH2	Hazardous Classification Information	O	4				N/A
*	1540	LH3	Hazardous Material Shipping Name Information	O	12				N/A
*	1550	LFH	Free-form Hazardous Material Information	O	20				N/A
*	1560	LEP	EPA Required Data	O	>1				N/A
*	1570	LH4	Canadian Dangerous Requirements	O	4				N/A
*	1580	LHT	Transborder Hazardous Requirements	O	3				N/A
*	1590	LHR	Hazardous Material Identifying Reference Numbers	O	10				N/A
*	1600	PER	Administrative Communications Contact	O	5				N/A
*	1610	LHE	Empty Equipment Hazardous Material Information	O	1				N/A
	*** LOOP ID - CLD**					**200**			N/A
*	1700	CLD	Load Detail	O	1				N/A
*	1800	REF	Reference Information	O	200				N/A
*	1850	DTP	Date or Time or Period	O	1				N/A
	1900	MAN	Marks and Numbers Information	O	>1			Used	53
	2000	DTM	Date/Time Reference	O	10			Used	54
*	2100	FOB	F.O.B. Related Instructions	O	1				N/A
	2150	PAL	Pallet Type and Load Characteristics	O	1			Used	55
	*** LOOP ID - N1**					**200**			N/A
	2200	N1	Party Identification	O	1				N/A
*	2300	N2	Additional Name Information	O	2				N/A
*	2400	N3	Party Location	O	2				N/A
*	2500	N4	Geographic Location	O	1				N/A

	Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage	Page
*	2600	REF	Reference Information	O	12				N/A
*	2700	PER	Administrative Communications Contact	O	3				N/A
*	2800	FOB	F.O.B. Related Instructions	O	1				N/A
*	2900	SDQ	Destination Quantity	O	50				N/A
*	3000	ETD	Excess Transportation Detail	O	1				N/A
*	3100	CUR	Currency	O	1				N/A
	*** LOOP ID - SAC**					**>1**			N/A
*	3200	SAC	Service, Promotion, Allowance, or Charge Information	O	1				N/A
*	3250	CUR	Currency	O	1				N/A
*	3300	GF	Furnished Goods and Services	O	1				N/A
*	3350	YNQ	Yes/No Question	O	10				N/A
	*** LOOP ID - LM**					**10**			N/A
*	3400	LM	Code Source Information	O	1				N/A
*	3500	LQ	Industry Code Identification	M	100				N/A
	*** LOOP ID - V1**					**>1**			N/A
*	3600	V1	Vessel Identification	O	1				N/A
*	3700	R4	Port or Terminal	O	>1				N/A
*	3800	DTM	Date/Time Reference	O	>1				N/A
	LOOP ID - HL					**200000**	**C2/0100L**		58
	0100	HL	Hierarchical Level - Pack	M	1		C2/0100	Must use	59
	0200	LIN	Item Identification	O	1			Used	60
	0300	SN1	Item Detail (Shipment)	O	1			Must use	64
*	0400	SLN	Subline Item Detail	O	1000				N/A
*	0500	PRF	Purchase Order Reference	O	1				N/A
	0600	PO4	Item Physical Details	O	1			Used	65
	0700	PID	Product/Item Description	O	200			Used	67
*	0800	MEA	Measurements	O	40				N/A
*	0900	PWK	Paperwork	O	25				N/A
*	1000	PKG	Marking, Packaging, Loading	O	25				N/A
	1100	TD1	Carrier Details (Quantity and Weight)	O	20			Used	69
*	1200	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12				N/A
	*** LOOP ID - TD3**					**12**			N/A
*	1300	TD3	Carrier Details (Equipment)	O	1				N/A
*	1350	AT9	Trailer or Container Dimension and Weight	O	1				N/A
*	1400	TD4	Carrier Details (Special Handling, or Hazardous	O	5				N/A

	Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage	Page
			Materials, or Both)						
*	1450	TSD	Trailer Shipment Details	O	1				N/A
	1500	REF	Reference Information	O	>1			Used	70
*	1510	PER	Administrative Communications Contact	O	3				N/A
	*** LOOP ID - LH1**					**100**			N/A
*	1520	LH1	Hazardous Identification Information	O	1				N/A
*	1530	LH2	Hazardous Classification Information	O	4				N/A
*	1540	LH3	Hazardous Material Shipping Name Information	O	12				N/A
*	1550	LFH	Free-form Hazardous Material Information	O	20				N/A
*	1560	LEP	EPA Required Data	O	>1				N/A
*	1570	LH4	Canadian Dangerous Requirements	O	4				N/A
*	1580	LHT	Transborder Hazardous Requirements	O	3				N/A
*	1590	LHR	Hazardous Material Identifying Reference Numbers	O	10				N/A
*	1600	PER	Administrative Communications Contact	O	5				N/A
*	1610	LHE	Empty Equipment Hazardous Material Information	O	1				N/A
	*** LOOP ID - CLD**					**200**			N/A
*	1700	CLD	Load Detail	O	1				N/A
*	1800	REF	Reference Information	O	200				N/A
*	1850	DTP	Date or Time or Period	O	1				N/A
	1900	MAN	Marks and Numbers Information	O	>1			Used	71
	2000	DTM	Date/Time Reference	O	10			Used	72
*	2100	FOB	F.O.B. Related Instructions	O	1				N/A
*	2150	PAL	Pallet Type and Load Characteristics	O	1				N/A
	*** LOOP ID - N1**					**200**			N/A
	2200	N1	Party Identification	O	1				N/A
*	2300	N2	Additional Name Information	O	2				N/A
*	2400	N3	Party Location	O	2				N/A
*	2500	N4	Geographic Location	O	1				N/A
*	2600	REF	Reference Information	O	12				N/A
*	2700	PER	Administrative Communications Contact	O	3				N/A
*	2800	FOB	F.O.B. Related Instructions	O	1				N/A
*	2900	SDQ	Destination Quantity	O	50				N/A

	Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage	Page
*	3000	ETD	Excess Transportation Detail	O	1				N/A
*	3100	CUR	Currency	O	1				N/A
	*** LOOP ID - SAC**					**>1**			N/A
*	3200	SAC	Service, Promotion, Allowance, or Charge Information	O	1				N/A
*	3250	CUR	Currency	O	1				N/A
*	3300	GF	Furnished Goods and Services	O	1				N/A
*	3350	YNQ	Yes/No Question	O	10				N/A
	*** LOOP ID - LM**					**10**			N/A
*	3400	LM	Code Source Information	O	1				N/A
*	3500	LQ	Industry Code Identification	M	100				N/A
	*** LOOP ID - V1**					**>1**			N/A
*	3600	V1	Vessel Identification	O	1				N/A
*	3700	R4	Port or Terminal	O	>1				N/A
*	3800	DTM	Date/Time Reference	O	>1				N/A
	LOOP ID - HL					**1**			73
	0100	HL	Hierarchical Level	M	1		C2/0100	Must use	74
	0200	LIN	Item Identification	O	1			Used	75
	0300	SN1	Item Detail (Shipment)	O	1			Used	77
*	0400	SLN	Subline Item Detail	O	1000				N/A
*	0500	PRF	Purchase Order Reference	O	1				N/A
	0600	PO4	Item Physical Details	O	1			Used	78
*	0700	PID	Product/Item Description	O	200				N/A
*	0800	MEA	Measurements	O	40				N/A
*	0900	PWK	Paperwork	O	25				N/A
*	1000	PKG	Marking, Packaging, Loading	O	25				N/A
*	1100	TD1	Carrier Details (Quantity and Weight)	O	20				N/A
*	1200	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12				N/A
	*** LOOP ID - TD3**					**12**			N/A
*	1300	TD3	Carrier Details (Equipment)	O	1				N/A
*	1350	AT9	Trailer or Container Dimension and Weight	O	1				N/A
*	1400	TD4	Carrier Details (Special Handling, or Hazardous Materials, or Both)	O	5				N/A
*	1450	TSD	Trailer Shipment Details	O	1				N/A
	1500	REF	Reference Information	O	>1			Used	80
*	1510	PER	Administrative Communications Contact	O	3				N/A
	*** LOOP ID - LH1**					**100**			N/A

	Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage	Page
*	1520	LH1	Hazardous Identification Information	O	1				N/A
*	1530	LH2	Hazardous Classification Information	O	4				N/A
*	1540	LH3	Hazardous Material Shipping Name Information	O	12				N/A
*	1550	LFH	Free-form Hazardous Material Information	O	20				N/A
*	1560	LEP	EPA Required Data	O	>1				N/A
*	1570	LH4	Canadian Dangerous Requirements	O	4				N/A
*	1580	LHT	Transborder Hazardous Requirements	O	3				N/A
*	1590	LHR	Hazardous Material Identifying Reference Numbers	O	10				N/A
*	1600	PER	Administrative Communications Contact	O	5				N/A
*	1610	LHE	Empty Equipment Hazardous Material Information	O	1				N/A
	*** LOOP ID - CLD**					**200**			N/A
*	1700	CLD	Load Detail	O	1				N/A
*	1800	REF	Reference Information	O	200				N/A
*	1850	DTP	Date or Time or Period	O	1				N/A
	1900	MAN	Marks and Numbers Information	O	>1			Used	81
	2000	DTM	Date/Time Reference	O	10			Used	82
*	2100	FOB	F.O.B. Related Instructions	O	1				N/A
*	2150	PAL	Pallet Type and Load Characteristics	O	1				N/A
	*** LOOP ID - N1**					**200**			N/A
	2200	N1	Party Identification	O	1				N/A
	2300	N2	Additional Name Information	O	2				N/A
	2400	N3	Party Location	O	2				N/A
	2500	N4	Geographic Location	O	1				N/A
*	2600	REF	Reference Information	O	12				N/A
*	2700	PER	Administrative Communications Contact	O	3				N/A
*	2800	FOB	F.O.B. Related Instructions	O	1				N/A
*	2900	SDQ	Destination Quantity	O	50				N/A
*	3000	ETD	Excess Transportation Detail	O	1				N/A
*	3100	CUR	Currency	O	1				N/A
	*** LOOP ID - SAC**					**>1**			N/A
*	3200	SAC	Service, Promotion, Allowance, or Charge	O	1				N/A

	Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage	Page
			Information						
*	3250	CUR	Currency	O	1				N/A
*	3300	GF	Furnished Goods and Services	O	1				N/A
*	3350	YNQ	Yes/No Question	O	10				N/A
	*** LOOP ID - LM**					**10**			N/A
*	3400	LM	Code Source Information	O	1				N/A
*	3500	LQ	Industry Code Identification	M	100				N/A
	*** LOOP ID - V1**					**>1**			N/A
*	3600	V1	Vessel Identification	O	1				N/A
*	3700	R4	Port or Terminal	O	>1				N/A
*	3800	DTM	Date/Time Reference	O	>1				N/A
	LOOP ID - HL					**200000**	**C2/0100L**		83
	0100	HL	Hierarchical Level - Item	M	1		C2/0100	Must use	84
	0200	LIN	Item Identification	O	1			Used	85
	0300	SN1	Item Detail (Shipment)	O	1			Used	88
*	0400	SLN	Subline Item Detail	O	1000				N/A
*	0500	PRF	Purchase Order Reference	O	1				N/A
	0600	PO4	Item Physical Details	O	1			Used	89
	0700	PID	Product/Item Description	O	200			Used	91
*	0800	MEA	Measurements	O	40				N/A
*	0900	PWK	Paperwork	O	25				N/A
	1000	PKG	Marking, Packaging, Loading	O	25			Used	94
*	1100	TD1	Carrier Details (Quantity and Weight)	O	20				N/A
*	1200	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12				N/A
	*** LOOP ID - TD3**					**12**			N/A
*	1300	TD3	Carrier Details (Equipment)	O	1				N/A
*	1350	AT9	Trailer or Container Dimension and Weight	O	1				N/A
*	1400	TD4	Carrier Details (Special Handling, or Hazardous Materials, or Both)	O	5				N/A
*	1450	TSD	Trailer Shipment Details	O	1				N/A
	1500	REF	Reference Information	O	>1			Used	97
*	1510	PER	Administrative Communications Contact	O	3				N/A
	*** LOOP ID - LH1**					**100**			N/A
*	1520	LH1	Hazardous Identification Information	O	1				N/A
*	1530	LH2	Hazardous Classification Information	O	4				N/A
*	1540	LH3	Hazardous Material Shipping Name	O	12				N/A

	Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage	Page
			Information						
*	1550	LFH	Free-form Hazardous Material Information	O	20				N/A
*	1560	LEP	EPA Required Data	O	>1				N/A
*	1570	LH4	Canadian Dangerous Requirements	O	4				N/A
*	1580	LHT	Transborder Hazardous Requirements	O	3				N/A
*	1590	LHR	Hazardous Material Identifying Reference Numbers	O	10				N/A
*	1600	PER	Administrative Communications Contact	O	5				N/A
*	1610	LHE	Empty Equipment Hazardous Material Information	O	1				N/A
	*** LOOP ID - CLD**					**200**			N/A
*	1700	CLD	Load Detail	O	1				N/A
*	1800	REF	Reference Information	O	200				N/A
*	1850	DTP	Date or Time or Period	O	1				N/A
*	1900	MAN	Marks and Numbers Information	O	>1				N/A
	2000	DTM	Date/Time Reference	O	10			Used	98
*	2100	FOB	F.O.B. Related Instructions	O	1				N/A
*	2150	PAL	Pallet Type and Load Characteristics	O	1				N/A
	*** LOOP ID - N1**					**200**			N/A
*	2200	N1	Party Identification	O	1				N/A
*	2300	N2	Additional Name Information	O	2				N/A
*	2400	N3	Party Location	O	2				N/A
*	2500	N4	Geographic Location	O	1				N/A
*	2600	REF	Reference Information	O	12				N/A
*	2700	PER	Administrative Communications Contact	O	3				N/A
*	2800	FOB	F.O.B. Related Instructions	O	1				N/A
*	2900	SDQ	Destination Quantity	O	50				N/A
*	3000	ETD	Excess Transportation Detail	O	1				N/A
*	3100	CUR	Currency	O	1				N/A
	*** LOOP ID - SAC**					**>1**			N/A
*	3200	SAC	Service, Promotion, Allowance, or Charge Information	O	1				N/A
*	3250	CUR	Currency	O	1				N/A
*	3300	GF	Furnished Goods and Services	O	1				N/A
*	3350	YNQ	Yes/No Question	O	10				N/A

	Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage	Page
	*** LOOP ID - LM**					**10**			N/A
*	3400	LM	Code Source Information	O	1				N/A
*	3500	LQ	Industry Code Identification	M	100				N/A
	*** LOOP ID - V1**					**>1**			N/A
*	3600	V1	Vessel Identification	O	1				N/A
*	3700	R4	Port or Terminal	O	>1				N/A
*	3800	DTM	Date/Time Reference	O	>1				N/A

Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage	Page
0100	CTT	Transaction Totals	O	1		N3/0100	Used	99
0200	SE	Transaction Set Trailer	M	1			Must use	100

Notes:

3/0100 Number of line items (CTT01) is the accumulation of the number of HL segments. If used, hash total (CTT02) is the sum of the value of units shipped (SN102) for each SN1 segment.

Comments:

2/0100L The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.

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ST Transaction Set Header

Pos: 0100	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 2

User Option (Usage): Must use

Purpose: To indicate the start of a transaction set and to assign a control number

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
ST01	143	**Transaction Set Identifier Code**	M	ID	3/3	Must use
		Description: Code uniquely identifying a Transaction Set				
		CodeList Summary (Total Codes: 319, Included: 1)				
		Code **Name**				
		856 Ship Notice/Manifest				
ST02	329	**Transaction Set Control Number**	M	AN	4/9	Must use
		Description: Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set				

Semantics:

1. The transaction set identifier (ST01) is used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).
2. The implementation convention reference (ST03) is used by the translation routines of the interchange partners to select the appropriate implementation convention to match the transaction set definition. When used, this implementation convention reference takes precedence over the implementation reference specified in the GS08.

BSN Beginning Segment for Ship Notice

Pos: 0200	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 5

User Option (Usage): Must use

Purpose: To transmit identifying numbers, dates, and other basic data relating to the transaction set

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
BSN01	353	**Transaction Set Purpose Code**	M	ID	2/2	Must use
		Description: Code identifying purpose of transaction set				
		CodeList Summary (Total Codes: 67, Included: 2)				
		Code Name 00 Original 04 Change				
		March 1, 2010: ***Used when this is a re-transmission of the 856with updates to one or more orders***. *Tied to Order HL, with REF*YB.*				
BSN02	396	**Shipment Identification**	M	AN	2/30	Must use
		Description: A unique control number assigned by the original shipper to identify a specific shipment				
BSN03	373	**Date**	M	DT	8/8	Must use
		Description: Date expressed as CCYYMMDD where CC represents the first two digits of the calendar year				
BSN04	337	**Time**	M	TM	4/8	Must use
		Description: Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)				
BSN05	1005	**Hierarchical Structure Code**	O	ID	4/4	Used
		Description: Code indicating the hierarchical application structure of a transaction set that utilizes the HL segment to define the structure of the transaction set				
		CodeList Summary (Total Codes: 82, Included: 3)				
		Code Name 0001 Shipment, Order, Packaging, Item				
		UCS structure is Shipment, Order, Tare, Pack and Item *March 1, 2010: This code value is used when Item level information is being provided. The Batch HL is not supported under this code.*				
		0008 Shipment, Order, Tare, Pack ZZZZ Mutually Defined - Shipment/Order/Tare/Pack/Batch/Item				
		March 1, 2010: *'ZZZZ' - Shipment / Order / Tare / Pack / Batch / Item.* *Shipment, Order, and Pack, with at least oneoccurrence of the Batch HL, is required in this HL structure.*				

Code	Name
	Item HL is optional.

Syntax Rules:

1. C0706 - If BSN07 is present, then BSN06 is required.

Semantics:

1. BSN03 is the date the shipment transaction set is created.
2. BSN04 is the time the shipment transaction set is created.
3. BSN06 is limited to shipment related codes.

Comments:

1. BSN06 and BSN07 differentiate the functionality of use for the transaction set.

Loop Hierarchical Level

Pos: 0100	Repeat: 200000
Mandatory	
Loop: HL	Elements: N/A

User Option (Usage): Must use

Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Loop Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat	Usage
0100	HL	Hierarchical Level	M	1		Must use
1100	TD1	Carrier Details (Quantity and Weight)	O	20		Used
1200	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12		Used
1500	REF	Reference Information	O	>1		Used
1900	MAN	Marks and Numbers Information	O	>1		Used
2000	DTM	Date/Time Reference	O	10		Must use
2200		Loop N1	O		200	Must use

HL Hierarchical Level

Pos: 0100	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 2

User Option (Usage): Must use

Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

HL02 will be omitted for the first HL segment of the transaction set, since it has no parent. HL03 indicates the application context of the series of segments following the current HL segment up to the next occurrence of an HL segment, or the CTT segment, e.g., Shipment, Order, Tare, Pack, and Item.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL01	628	**Hierarchical ID Number**	M	AN	1/12	Must use
		Description: A unique number assigned by the sender to identify a particular data segment in a hierarchical structure				
		The value for HL01 for this level (shipment) is 1.				
HL03	735	**Hierarchical Level Code**	M	ID	1/2	Must use
		Description: Code defining the characteristic of a level in a hierarchical structure				
		CodeList Summary (Total Codes: 250, Included: 1)				
		Code **Name**				
		S Shipment				

Comments:

1. The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to line-item data.
2. The HL segment defines a top-down/left-right ordered structure.
3. HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be "1" for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.
4. HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
5. HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.
6. HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.

TD1 Carrier Details (Quantity and Weight)

Pos: 1100	Max: 20
Detail - Optional	
Loop: HL	Elements: 5

User Option (Usage): Used

Purpose: To specify the transportation details relative to commodity, weight, and quantity

This segment is used to specify total containers and gross weight of the shipment.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD101	103	**Packaging Code**	O	AN	3/5	Used

Description: Code identifying the type of packaging; Part 1: Packaging Form, Part 2: Packaging Material; if the Data Element is used, then Part 1 is always required

CodeList Summary (Total Codes: 157, Included: 19)

Code	Name
AAA	Pallet, Returnable
AAB	Splash Blend
	Description: *Splash blending is the mixing of two gasoline products, of different octane levels, in a tank on the delivery vehicle to produce a third blended grade of motor fuel for resale*
BAG	Bag
BDL	Bundle
BIN	Bin
BOT	Bottle
BXT	Bucket
CNT	Container
CON	Cones
CRT	Crate
CTN	Carton
DRM	Drum
JAR	Jar
PKG	Package
PLT	Pallet
SLP	Slip Sheet
	Description: *Shipping containers utilizing slip sheets, which are cardboard platforms used to hold product for storage or transportation*
TBE	Tube
TBN	Tote Bin
TUB	Tub

CodeList Summary (Total Codes: 58, Included: 6)

Code	Name
03	Hard Wood
05	Soft Wood
25	Corrugated or Solid
31	Fibre
79	Plastic

Code	Name
94	Wood

TD102	80	**Lading Quantity**	X	N0	1/7	Used

Description: Number of units (pieces) of the lading commodity

TD102 is the number of packages in the shipment as described in TD101.

TD106	187	**Weight Qualifier**	O	ID	1/2	Used

Description: Code defining the type of weight

CodeList Summary (Total Codes: 52, Included: 1)

Code	Name
G	Gross Weight

TD107	81	**Weight**	X	R	1/10	Used

Description: Numeric value of weight

TD108	355	**Unit or Basis for Measurement Code**	X	ID	2/2	Used

Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken

CodeList Summary (Total Codes: 888, Included: 2)

Code	Name
KG	Kilogram
LB	Pound

Syntax Rules:

1. C0102 - If TD101 is present, then TD102 is required.
2. C0304 - If TD103 is present, then TD104 is required.
3. C0607 - If TD106 is present, then TD107 is required.
4. P0708 - If either TD107 or TD108 is present, then the other is required.
5. P0910 - If either TD109 or TD110 is present, then the other is required.

TD5 Carrier Details (Routing Sequence/Transit Time)

Pos: 1200	Max: 12
Detail - Optional	
Loop: HL	Elements: 4

User Option (Usage): Used

Purpose: To specify the carrier and sequence of routing and provide transit time information

This segment may also be used to provide a status of the shipment.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD501	133	**Routing Sequence Code**	O	ID	1/2	Used

Description: Code describing the relationship of a carrier to a specific shipment movement

CodeList Summary (Total Codes: 23, Included: 23)

Code	Name
1	1st Carrier after Origin Carrier
2	2nd Carrier after Origin Carrier
3	3rd Carrier after Origin Carrier
4	4th Carrier after Origin Carrier
5	5th Carrier after Origin Carrier
6	6th Carrier after Origin Carrier
7	7th Carrier after Origin Carrier
8	8th Carrier after Origin Carrier
9	9th Carrier after Origin Carrier
A	Origin Carrier, Agent's Routing (Rail)
B	Origin/Delivery Carrier (Any Mode)
D	DELY (Delivery Switch Carrier)
H	Haulage Rights Carrier and Junction
I	Origin Switch Carrier
M	Haulage Movement Carrier and Junction
O	Origin Carrier (Air, Motor, or Ocean)
R	Origin Carrier, Rule 11 Shipment
S	Origin Carrier, Shipper's Routing (Rail)
V	Intermediate Switch Carrier
X	Last Carrier in Route on Return Route Move
Z	Mutually Defined
JD	Junction Settlement Carrier Following (Destination carrier receiving revenues resulting from junction contract)
JO	Junction Settlement Carrier Predecessor (Origin carrier receiving revenues resulting from junction contract)

TD502	66	**Identification Code Qualifier**	X	ID	1/2	Used

Description: Code designating the system/method of code structure used for Identification Code (67)

CodeList Summary (Total Codes: 249, Included: 1)

Code	Name
2	Standard Carrier Alpha Code (SCAC)

TD503	67	**Identification Code**	X	AN	2/80	Used
		Description: Code identifying a party or other code				
TD506	368	**Shipment/Order Status Code**	X	ID	2/2	Used
		Description: Code indicating the status of an order or shipment or the disposition of any difference between the quantity ordered and the quantity shipped for a line item or transaction				
		Status for the Shipment.				

CodeList Summary (Total Codes: 102, Included: 12)

Code	Name
BO	Back Ordered
CC	Shipment Complete on (Date)
	Shipped equals ordered
CM	Shipment Complete with Additional Quantity
	Shipped more than ordered
CP	Partial Shipment on (Date), Considered No Backorder
	Shipped less than ordered
CS	Shipment Complete with Substitution
	Shipped less than ordered, but filled with substitutes
DO	Diverted Order
IC	Item Canceled
IS	Item Represents Substitution from Original Order
	Ordered quantity is zero
PR	Partial Shipment
SS	Split Shipment
UB	Unbilled Quantity Balance
UN	Unavailable

Syntax Rules:

1. R0204050612 - At least one of TD502, TD504, TD505, TD506 or TD512 is required.
2. C0203 - If TD502 is present, then TD503 is required.
3. C0708 - If TD507 is present, then TD508 is required.
4. C1011 - If TD510 is present, then TD511 is required.
5. C1312 - If TD513 is present, then TD512 is required.
6. C1413 - If TD514 is present, then TD513 is required.
7. C1512 - If TD515 is present, then TD512 is required.

Semantics:

1. TD515 is the country where the service is to be performed.

Comments:

1. When specifying a routing sequence to be used for the shipment movement in lieu of specifying each carrier within the movement, use TD502 to identify the party responsible for defining the routing sequence, and use TD503 to identify the actual routing sequence, specified by the party identified in TD502.

REF Reference Information

Pos: 1500	Max: >1
Detail - Optional	
Loop: HL	Elements: 2

User Option (Usage): Used

Purpose: To specify identifying information

At least one REF identifying the the Bill of Lading or Delivery TIcket Number is required in this transaction. The REF (Position 1500) may be used at the Shipment level or Order level, but not both.

A shipment may be comprised of one or more Bills of Lading / Delivery Ticket Numbers.

If a Master Bill of Lading is provided, it is identified in this REF segment and the individual Bills of Lading are identified in the Order level REF segment.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	128	**Reference Identification Qualifier**	M	ID	2/3	Must use
		Description: Code qualifying the Reference Identification				
		CodeList Summary (Total Codes: 1777, Included: 2)				
		Code **Name**				
		BM Bill of Lading Number				
		DJ Delivery Ticket Number				
REF02	127	**Reference Identification**	X	AN	1/80	Used
		Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier				

Syntax Rules:

1. R0203 - At least one of REF02 or REF03 is required.

Semantics:

1. REF04 contains data relating to the value cited in REF02.

MAN Marks and Numbers Information

Pos: 1900	Max: >1
Detail - Optional	
Loop: HL	Elements: 2

User Option (Usage): Used

Purpose: To indicate identifying marks and numbers for shipping containers

This segment is used to specify a single GS1-128 Serial Shipping Container Code to identify an entire shipment, e.g. a full trailer.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
MAN01	88	**Marks and Numbers Qualifier**	M	ID	1/2	Must use
		Description: Code specifying the application or source of Marks and Numbers (87)				
		CodeList Summary (Total Codes: 28, Included: 2)				
		Code **Name**				
		GM EAN.UCC Serial Shipping Container Code (SSCC) and Application Identifier				
		SI Self-Identifying Container via Radio Frequency ID Device				
		Description: *Inbound containers that do not need manual routing*				
MAN02	87	**Marks and Numbers**	M	AN	1/48	Must use
		Description: Marks and numbers used to identify a shipment or parts of a shipment				

Syntax Rules:

1. P0405 - If either MAN04 or MAN05 is present, then the other is required.
2. C0605 - If MAN06 is present, then MAN05 is required.

Semantics:

1. MAN01/MAN02 and MAN04/MAN05 may be used to identify two different marks and numbers assigned to the same physical container.
2. When both MAN02 and MAN03 are used, MAN02 is the starting number of a sequential range and MAN03 is the ending number of that range.
3. When both MAN05 and MAN06 are used, MAN05 is the starting number of a sequential range, and MAN06 is the ending number of that range.

Comments:

1. When MAN01 contains code "UC" (U.P.C. Shipping Container Code) and MAN05/MAN06 contain a range of ID numbers, MAN03 is not used. The reason for this is that the U.P.C. Shipping Container code is the same on every carton that is represented in the range in MAN05/MAN06.
2. MAN03 and/or MAN06 are only used when sending a range(s) of ID numbers.
3. When both MAN02/MAN03 and MAN05/MAN06 are used to send ranges of ID numbers, the integrity of the two ID numbers must be maintained.

DTM Date/Time Reference

Pos: 2000	Max: 10
Detail - Optional	
Loop: HL	Elements: 3

User Option (Usage): Must use

Purpose: To specify pertinent dates and times

One occurrence of this DTM is required, with code 011 - Shipped date.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM01	374	**Date/Time Qualifier**	M	ID	3/3	Must use
		Description: Code specifying type of date or time, or both date and time **CodeList Summary** (Total Codes: 1289, Included: 1) **Code** **Name** 011 Shipped				
DTM02	373	**Date**	X	DT	8/8	Used
		Description: Date expressed as CCYYMMDD where CC represents the first two digits of the calendar year				
DTM03	337	**Time**	X	TM	4/8	Used
		Description: Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)				

Syntax Rules:

1. R020305 - At least one of DTM02, DTM03 or DTM05 is required.
2. C0403 - If DTM04 is present, then DTM03 is required.
3. P0506 - If either DTM05 or DTM06 is present, then the other is required.

Loop Party Identification

Pos: 2200	Repeat: 200
Optional	
Loop: N1	Elements: N/A

User Option (Usage): Must use

Purpose: To identify a party by type of organization, name, and code

This N1 loop is used to identify parties relevant to the Shipment level parties.

Loop Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat	Usage
2200	N1	Party Identification	O	1		Must use
2300	N2	Additional Name Information	O	2		Used
2400	N3	Party Location	O	2		Used
2500	N4	Geographic Location	O	1		Used

N1 Party Identification

Pos: 2200	Max: 1
Detail - Optional	
Loop: N1	Elements: 4

User Option (Usage): Must use

Purpose: To identify a party by type of organization, name, and code

Two occurrences are required: 'Ship To' and 'Ship From'.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N101	98	**Entity Identifier Code**	M	ID	2/3	Must use
		Description: Code identifying an organizational entity, a physical location, property or an individual				
		CodeList Summary (Total Codes: 1506, Included: 2) **Code** **Name** SF Ship From ST Ship To				
N102	93	**Name**	X	AN	1/60	Used
		Description: Free-form name				
N103	66	**Identification Code Qualifier**	X	ID	1/2	Used
		Description: Code designating the system/method of code structure used for Identification Code (67)				
		CodeList Summary (Total Codes: 249, Included: 4) **Code** **Name** 9 D-U-N-S+4, D-U-N-S Number with Four Character Suffix 10 Department of Defense Activity Address Code (DODAAC) 92 Assigned by Buyer or Buyer's Agent UL Global Location Number (GLN) **Description:** *A globally unique 13 digit code for the identification of a legal, functional or physical location within the Uniform Code Council (UCC) and International Article Number Association (EAN) numbering system*				
N104	67	**Identification Code**	X	AN	2/80	Used
		Description: Code identifying a party or other code				

Syntax Rules:

1. R0203 - At least one of N102 or N103 is required.
2. P0304 - If either N103 or N104 is present, then the other is required.

Comments:

1. This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
2. N105 and N106 further define the type of entity in N101.

N2 Additional Name Information

Pos: 2300	Max: 2
Detail - Optional	
Loop: N1	Elements: 2

User Option (Usage): Used

Purpose: To specify additional names

Use only if address information for the referenced organization or company in the N1 segment can not be derived from the code in N104.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N201	93	**Name**	M	AN	1/60	Must use
		Description: Free-form name				
N202	93	**Name**	O	AN	1/60	Used
		Description: Free-form name				

N3 Party Location

Pos: 2400	Max: 2
Detail - Optional	
Loop: N1	Elements: 2

User Option (Usage): Used

Purpose: To specify the location of the named party

Use only if address information for the referenced organization or company in the N1 segment can not be derived from the code in N104.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N301	166	**Address Information**	M	AN	1/55	Must use
		Description: Address information				
N302	166	**Address Information**	O	AN	1/55	Used
		Description: Address information				

N4 Geographic Location

Pos: 2500	Max: 1
Detail - Optional	
Loop: N1	Elements: 4

User Option (Usage): Used

Purpose: To specify the geographic place of the named party

Use only if address information for the referenced organization or company in the N1 segment can not be derived from the code in N104.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N401	19	**City Name**	O	AN	2/30	Used
		Description: Free-form text for city name				
N402	156	**State or Province Code**	X	ID	2/2	Used
		Description: Code (Standard State/Province) as defined by appropriate government agency				
N403	116	**Postal Code**	O	ID	3/15	Used
		Description: Code defining international postal zone code excluding punctuation and blanks (zip code for United States)				
N404	26	**Country Code**	X	ID	2/3	Used
		Description: Code identifying the country				

Syntax Rules:

1. E0207 - Only one of N402 or N407 may be present.
2. C0605 - If N406 is present, then N405 is required.
3. C0704 - If N407 is present, then N404 is required.

Comments:

1. A combination of either N401 through N404, or N405 and N406 may be adequate to specify a location.

Loop Order

Pos: 0100	Repeat: 200000
Mandatory	
Loop: HL	Elements: N/A

User Option (Usage): Must use

Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Loop Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat	Usage
0100	HL	Hierarchical Level - Order	M	1		Must use
0500	PRF	Purchase Order Reference	O	1		Must use
1200	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12		Used
1500	REF	Reference Information	O	>1		Used
2200		Loop N1	O		200	Used

HL Hierarchical Level - Order

Pos: 0100	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 3

User Option (Usage): Must use

Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL01	628	**Hierarchical ID Number**	M	AN	1/12	Must use
		Description: A unique number assigned by the sender to identify a particular data segment in a hierarchical structure				
HL02	734	**Hierarchical Parent ID Number**	O	AN	1/12	Used
		Description: Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to				
HL03	735	**Hierarchical Level Code**	M	ID	1/2	Must use
		Description: Code defining the characteristic of a level in a hierarchical structure				
		HL03 indicates the application context of the series of segments following the current HL segment up to the next occurrence of an HL segment, or the CTT segment, e.g., Shipment, Order, Tare, Pack, and Item.				

CodeList Summary (Total Codes: 250, Included: 1)

Code	Name
O	Order

PRF Purchase Order Reference

Pos: 0500	Max: 1
Detail - Optional	
Loop: HL	Elements: 4

User Option (Usage): Must use

Purpose: To provide reference to a specific purchase order

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PRF01	324	**Purchase Order Number**	M	AN	1/22	Must use
		Description: Identifying number for Purchase Order assigned by the orderer/purchaser				
PRF02	328	**Release Number**	O	AN	1/30	Used
		Description: Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction				
PRF03	327	**Change Order Sequence Number**	O	AN	1/8	Used
		Description: Number assigned by the orderer identifying a specific change or revision to a previously transmitted transaction set				
PRF04	373	**Date**	O	DT	8/8	Used
		Description: Date expressed as CCYYMMDD where CC represents the first two digits of the calendar year				

Semantics:

1. PRF04 is the date assigned by the purchaser to purchase order.

TD5 Carrier Details (Routing Sequence/Transit Time)

Pos: 1200	Max: 12
Detail - Optional	
Loop: HL	Elements: 1

User Option (Usage): Used

Purpose: To specify the carrier and sequence of routing and provide transit time information

This segment is used, at the Order level, to specify the status of this Order in this shipment.

The TD5 segment may be used to drive the trade item replenishment process.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD506	368	**Shipment/Order Status Code**	X	ID	2/2	Used

Description: Code indicating the status of an order or shipment or the disposition of any difference between the quantity ordered and the quantity shipped for a line item or transaction

CodeList Summary (Total Codes: 102, Included: 12)

Code	Name
BO	Back Ordered
CC	Shipment Complete on (Date)
	Shipped equals ordered
CM	Shipment Complete with Additional Quantity
	Shipped more than ordered
CP	Partial Shipment on (Date), Considered No Backorder
	Shipped less than ordered
CS	Shipment Complete with Substitution
	Shipped less than ordered, but filled with substitutes
DO	Diverted Order
IC	Item Canceled
IS	Item Represents Substitution from Original Order
	Ordered quantity is zero
PR	Partial Shipment
SS	Split Shipment
UB	Unbilled Quantity Balance
UN	Unavailable

Syntax Rules:

1. C0203 - If TD502 is present, then TD503 is required.
2. C0708 - If TD507 is present, then TD508 is required.
3. C1011 - If TD510 is present, then TD511 is required.
4. C1312 - If TD513 is present, then TD512 is required.
5. C1413 - If TD514 is present, then TD513 is required.
6. C1512 - If TD515 is present, then TD512 is required.
7. R0204050612 - At least one of TD502, TD504, TD505, TD506 or TD512 is required.

Semantics:

1. TD515 is the country where the service is to be performed.

REF Reference Information

Pos: 1500	Max: >1
Detail - Optional	
Loop: HL	Elements: 2

User Option (Usage): Used

Purpose: To specify identifying information

This REF may be used at the Shipment or Order level, but not both.

If a shipment is comprised of more than one order, use this REF segment to correlate the Purchase Order Number (in the PRF segment) to its Bill of Lading Number.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	128	**Reference Identification Qualifier**	M	ID	2/3	Must use
		Description: Code qualifying the Reference Identification				
		CodeList Summary (Total Codes: 1777, Included: 3)				
		Code **Name** BM Bill of Lading Number DJ Delivery Ticket Number YB Revision Number				
		March 1, 2010: *This code is used to identify updates to the order.* *BSN01 value must be '04' - Change*				
REF02	127	**Reference Identification**	X	AN	1/50	Used
		Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier				

Syntax Rules:

1. R0203 - At least one of REF02 or REF03 is required.

Loop Party Identification

Pos: 2200	Repeat: 200
Optional	
Loop: N1	Elements: N/A

User Option (Usage): Used

Purpose: To identify a party by type of organization, name, and code

This N1 loop is used when the Order level party information is different from the Shipment level.

Loop Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat	Usage
2200	N1	Party Identification	O	1		Used
2300	N2	Additional Name Information	O	2		Used
2400	N3	Party Location	O	2		Used
2500	N4	Geographic Location	O	1		Used

N1 Party Identification

Pos: 2200	Max: 1
Detail - Optional	
Loop: N1	Elements: 4

User Option (Usage): Used

Purpose: To identify a party by type of organization, name, and code

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N101	98	**Entity Identifier Code**	M	ID	2/3	Must use
		Description: Code identifying an organizational entity, a physical location, property or an individual				
		CodeList Summary (Total Codes: 1506, Included: 2)				
		Code Name				
		SF Ship From				
		This code may only be used at the Order Level, if the ship notice is structured with a Master Bill of Lading at the Shipment Level and subordinate Bill(s) of Lading at the Order Level.				
		ST Ship To				
		This code may only be used at the Order Level, if the ship notice is structured with a Master Bill of Lading at the Shipment Level and subordinate Bill(s) of Lading at the Order Level.				
N102	93	**Name**	X	AN	1/60	Used
		Description: Free-form name				
N103	66	**Identification Code Qualifier**	X	ID	1/2	Used
		Description: Code designating the system/method of code structure used for Identification Code (67)				
		CodeList Summary (Total Codes: 249, Included: 4)				
		Code Name				
		9 D-U-N-S+4, D-U-N-S Number with Four Character Suffix				
		The identification code consists of a 9-digit DUNS number for the party followed by a 4-character suffix defined by the party.				
		10 Department of Defense Activity Address Code (DODAAC)				
		Used to identify military locations. DODAAC codes are assigned to all military locations by the Department of Defense and consist of a six-digit alpha numeric number.				
		92 Assigned by Buyer or Buyer's Agent				
		Code may be used to identify payer's internal identification number.				
		UL Global Location Number (GLN)				
		Description: *A globally unique 13 digit code for the identification of a legal, functional or physical location within the Uniform Code Council (UCC) and International Article Number Association (EAN) numbering system*				
		The GS1 US Location Code is a thirteen digit code used to uniquely identify physical or logical locations. The right most position (position 13) is a modulus 10 check character.				

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N104	67	**Identification Code**	X	AN	2/80	Used
		Description: Code identifying a party or other code				

Syntax Rules:

1. P0304 - If either N103 or N104 is present, then the other is required.
2. R0203 - At least one of N102 or N103 is required.

N2 Additional Name Information

Pos: 2300	Max: 2
Detail - Optional	
Loop: N1	Elements: 2

User Option (Usage): Used

Purpose: To specify additional names

Use only if address information for the referenced organization or company in the N1 segment can not be derived from the code in N104.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N201	93	**Name**	M	AN	1/60	Must use
		Description: Free-form name				
N202	93	**Name**	O	AN	1/60	Used
		Description: Free-form name				

N3 Party Location

Pos: 2400	Max: 2
Detail - Optional	
Loop: N1	Elements: 2

User Option (Usage): Used

Purpose: To specify the location of the named party

Use only if address information for the referenced organization or company in the N1 segment can not be derived from the code in N104.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N301	166	**Address Information**	M	AN	1/55	Must use
		Description: Address information				
N302	166	**Address Information**	O	AN	1/55	Used
		Description: Address information				

N4 Geographic Location

Pos: 2500	Max: 1
Detail - Optional	
Loop: N1	Elements: 4

User Option (Usage): Used

Purpose: To specify the geographic place of the named party

Use only if address information for the referenced organization or company in the N1 segment can not be derived from the code in N104.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N401	19	**City Name**	O	AN	2/30	Used
		Description: Free-form text for city name				
N402	156	**State or Province Code**	X	ID	2/2	Used
		Description: Code (Standard State/Province) as defined by appropriate government agency				
N403	116	**Postal Code**	O	ID	3/15	Used
		Description: Code defining international postal zone code excluding punctuation and blanks (zip code for United States)				
N404	26	**Country Code**	X	ID	2/3	Used
		Description: Code identifying the country				

Syntax Rules:

1. C0605 - If N406 is present, then N405 is required.
2. C0704 - If N407 is present, then N404 is required.
3. E0207 - Only one of N402 or N407 may be present.

Loop Tare

Pos: 0100 **Repeat: 200000**
Optional
Loop: HL **Elements: N/A**

User Option (Usage): Used

Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

March 1, 2010:
This loop provides information about the pallet containers.

Loop Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat	Usage
0100	HL	Hierarchical Level - Tare	O	1		Used
0200	LIN	Item Identification	O	1		Used
0300	SN1	Item Detail (Shipment)	O	1		Used
0700	PID	Product/Item Description	O	200		Used
1100	TD1	Carrier Details (Quantity and Weight)	O	20		Used
1900	MAN	Marks and Numbers Information	O	>1		Used
2000	DTM	Date/Time Reference	O	10		Used
2150	PAL	Pallet Type and Load Characteristics	O	1		Used

HL Hierarchical Level - Tare

Pos: 0100	Max: 1
Detail - Optional	
Loop: HL	Elements: 3

User Option (Usage): Used

Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

This segment is only used when tare level information is being sent.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL01	628	**Hierarchical ID Number**	M	AN	1/12	Must use
		Description: A unique number assigned by the sender to identify a particular data segment in a hierarchical structure				
HL02	734	**Hierarchical Parent ID Number**	O	AN	1/12	Used
		Description: Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to				
HL03	735	**Hierarchical Level Code**	M	ID	1/2	Must use
		Description: Code defining the characteristic of a level in a hierarchical structure				
		HL03 indicates the application context of the series of segments following the current HL segment up to the next occurrence of an HL segment, or the CTT segment, e.g., Shipment, Order, Tare, Pack, and Item.				

CodeList Summary (Total Codes: 250, Included: 1)

Code	Name
T	Shipping Tare
	Pallet

LIN Item Identification

Pos: 0200	Max: 1
Detail - Optional	
Loop: HL	Elements: 11

User Option (Usage): Used

Purpose: To specify basic item identification data

To meet USDA Country of Origin Labeling (COOL) legislation requirements, the ISO Country Code(s) may be presented in the LIN segment, using the data element 235/234 pair. GS1 US recommends the use of the ISO 3166-1 alpha-2 codes.

Example: Product of USA and Canada with a GTIN of 061414000010,
*LIN*01*UP*061414000010*CH*US CA~*

March 1, 2010:
This segment is only used for a Tare-level orderable product to which a GTIN has been assigned.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
LIN01	350	**Assigned Identification**	O	AN	1/20	Used
		Description: Alphanumeric characters assigned for differentiation within a transaction set				
LIN02	235	**Product/Service ID Qualifier**	M	ID	2/2	Must use
		Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)				
		CodeList Summary (Total Codes: 532, Included: 7)				
		Code **Name**				
		CA Case				
		CH Country of Origin Code				
		EN GTIN EAN/UCC - 13 Digit Data Structure				
		Description: *Data structure for the 13 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*				
		IN Buyer's Item Number				
		LT Lot Number				
		UK GTIN 14-digit Data Structure				
		Description: *Data structure for the 14 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*				
		UP GTIN UCC - 12 Digit Data Structure				
		Description: *Data structure for the 12 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN). Also known as the Universal Product Code (U.P.C.)*				
LIN03	234	**Product/Service ID**	M	AN	1/48	Must use
		Description: Identifying number for a product or service				
LIN04	235	**Product/Service ID Qualifier**	X	ID	2/2	Used
		Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)				
		CodeList Summary (Total Codes: 532, Included: 7)				
		Code **Name**				
		CA Case				

Code	Name
CH	Country of Origin Code
EN	GTIN EAN/UCC - 13 Digit Data Structure **Description:** *Data structure for the 13 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*
IN	Buyer's Item Number
LT	Lot Number
UK	GTIN 14-digit Data Structure **Description:** *Data structure for the 14 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*
UP	GTIN UCC - 12 Digit Data Structure **Description:** *Data structure for the 12 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN). Also known as the Universal Product Code (U.P.C.)*

LIN05	234	**Product/Service ID**	X	AN	1/48	Used

Description: Identifying number for a product or service

LIN06	235	**Product/Service ID Qualifier**	X	ID	2/2	Used

Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)

CodeList Summary (Total Codes: 532, Included: 7)

Code	Name
CA	Case
CH	Country of Origin Code
EN	GTIN EAN/UCC - 13 Digit Data Structure **Description:** *Data structure for the 13 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*
IN	Buyer's Item Number
LT	Lot Number
UK	GTIN 14-digit Data Structure **Description:** *Data structure for the 14 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*
UP	GTIN UCC - 12 Digit Data Structure **Description:** *Data structure for the 12 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN). Also known as the Universal Product Code (U.P.C.)*

LIN07	234	**Product/Service ID**	X	AN	1/48	Used

Description: Identifying number for a product or service

LIN08	235	**Product/Service ID Qualifier**	X	ID	2/2	Used

Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)

CodeList Summary (Total Codes: 532, Included: 7)

Code	Name
CA	Case
CH	Country of Origin Code
EN	GTIN EAN/UCC - 13 Digit Data Structure

Code	Name
	Description: *Data structure for the 13 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*
IN	Buyer's Item Number
LT	Lot Number
UK	GTIN 14-digit Data Structure
	Description: *Data structure for the 14 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*
UP	GTIN UCC - 12 Digit Data Structure
	Description: *Data structure for the 12 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN). Also known as the Universal Product Code (U.P.C.)*

LIN09	234	**Product/Service ID**	X	AN	1/48	Used

Description: Identifying number for a product or service

LIN10	235	**Product/Service ID Qualifier**	X	ID	2/2	Used

Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)

CodeList Summary (Total Codes: 532, Included: 7)

Code	Name
CA	Case
CH	Country of Origin Code
EN	GTIN EAN/UCC - 13 Digit Data Structure
	Description: *Data structure for the 13 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*
IN	Buyer's Item Number
LT	Lot Number
UK	GTIN 14-digit Data Structure
	Description: *Data structure for the 14 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*
UP	GTIN UCC - 12 Digit Data Structure
	Description: *Data structure for the 12 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN). Also known as the Universal Product Code (U.P.C.)*

LIN11	234	**Product/Service ID**	X	AN	1/48	Used

Description: Identifying number for a product or service

Syntax Rules:

1. P0405 - If either LIN04 or LIN05 is present, then the other is required.
2. P0607 - If either LIN06 or LIN07 is present, then the other is required.
3. P0809 - If either LIN08 or LIN09 is present, then the other is required.
4. P1011 - If either LIN10 or LIN11 is present, then the other is required.
5. P1213 - If either LIN12 or LIN13 is present, then the other is required.
6. P1415 - If either LIN14 or LIN15 is present, then the other is required.
7. P1617 - If either LIN16 or LIN17 is present, then the other is required.
8. P1819 - If either LIN18 or LIN19 is present, then the other is required.
9. P2021 - If either LIN20 or LIN21 is present, then the other is required.

10. P2223 - If either LIN22 or LIN23 is present, then the other is required.
11. P2425 - If either LIN24 or LIN25 is present, then the other is required.
12. P2627 - If either LIN26 or LIN27 is present, then the other is required.
13. P2829 - If either LIN28 or LIN29 is present, then the other is required.
14. P3031 - If either LIN30 or LIN31 is present, then the other is required.

Semantics:

1. LIN01 is the line item identification

SN1 Item Detail (Shipment)

Pos: 0300	Max: 1
Detail - Optional	
Loop: HL	Elements: 2

User Option (Usage): Used

Purpose: To specify line-item detail relative to shipment

March 1, 2010:
This segment is used if the LIN segment is used.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SN102	382	**Number of Units Shipped**	M	R4	1/10	Must use
		Description: Numeric value of units shipped in manufacturer's shipping units for a line item or transaction set				
SN103	355	**Unit or Basis for Measurement Code**	M	ID	2/2	Must use
		Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				
		CodeList Summary (Total Codes: 888, Included: 1)				
		Code **Name**				
		PL Pallet/Unit Load				

Syntax Rules:

1. P0506 - If either SN105 or SN106 is present, then the other is required.

Semantics:

1. SN101 is the ship notice line-item identification.
2. SN105 is quantity ordered.

PID Product/Item Description

Pos: 0700	Max: 200
Detail - Optional	
Loop: HL	Elements: 3

User Option (Usage): Used

Purpose: To describe a product or process in coded or free-form format

The following guidance has been developed to assist trade parties in the transmittal of Country of Origin Labeling information persuant to the USDA requirements.
To convey the USDA Country of Origin Labeling (COOL) information, use the PID segment as follows:
PID01 - F
PID02 - MSG
PID03 - not used
PID04 - not used
PID05 - country of origin information, ordered as mandated by the USDA legislation.

Example: A product of USA and Canada would be shown as:
*PID*F*MSG***PRODUCT OF USA AND CANADA~. (The * and ~ are delimiter values.)*

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PID01	349	**Item Description Type**	M	ID	1/1	Must use
		Description: Code indicating the format of a description				
		CodeList Summary (Total Codes: 3, Included: 1)				
		Code **Name**				
		F Free-form				
PID02	750	**Product/Process Characteristic Code**	O	ID	2/3	Used
		Description: Code identifying the general class of a product or process characteristic				
		CodeList Summary (Total Codes: 270, Included: 1)				
		Code **Name**				
		MSG Market Segment				
		Description: *General market classification for which a product is intended*				
PID05	352	**Description**	X	AN	1/80	Used
		Description: A free-form description to clarify the related data elements and their content				

Syntax Rules:

1. C0403 - If PID04 is present, then PID03 is required.
2. C0703 - If PID07 is present, then PID03 is required.
3. C0804 - If PID08 is present, then PID04 is required.
4. C0905 - If PID09 is present, then PID05 is required.
5. R0405 - At least one of PID04 or PID05 is required.

Semantics:

1. Use PID03 to indicate the organization that publishes the code list being referred to.
2. PID04 should be used for industry-specific product description codes.
3. PID08 describes the physical characteristics of the product identified in PID04. A "Y" indicates that the specified attribute applies to this item; an "N" indicates it does not apply. Any other value is indeterminate.

4. PID09 is used to identify the language being used in PID05.

TD1 Carrier Details (Quantity and Weight)

Pos: 1100	Max: 20
Detail - Optional	
Loop: HL	Elements: 5

User Option (Usage): Used

Purpose: To specify the transportation details relative to commodity, weight, and quantity

For dry tare.

Typically, either the TD1 or PAL segment would be used. However, if both the TD1 and PAL segments are needed, measurement value data elements may be included in only one of the segments. Those data elements are - in the PAL segment: PAL11, PAL12, PAL13, PAL14; in the TD1 segment: TD106, TD107, TD108, TD109, TD110.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD101	103	**Packaging Code**	O	AN	3/5	Used

Description: Code identifying the type of packaging; Part 1: Packaging Form, Part 2: Packaging Material; if the Data Element is used, then Part 1 is always required

CodeList Summary (Total Codes: 157, Included: 19)

Code	Name
AAA	Pallet, Returnable
AAB	Splash Blend
	Description: *Splash blending is the mixing of two gasoline products, of different octane levels, in a tank on the delivery vehicle to produce a third blended grade of motor fuel for resale*
BAG	Bag
BDL	Bundle
BIN	Bin
BOT	Bottle
BXT	Bucket
CNT	Container
CON	Cones
CRT	Crate
CTN	Carton
DRM	Drum
JAR	Jar
PKG	Package
PLT	Pallet
SLP	Slip Sheet
	Description: *Shipping containers utilizing slip sheets, which are cardboard platforms used to hold product for storage or transportation*
TBE	Tube
TBN	Tote Bin
TUB	Tub

CodeList Summary (Total Codes: 58, Included: 6)

Code	Name
03	Hard Wood
05	Soft Wood

Code	Name
25	Corrugated or Solid
31	Fibre
79	Plastic
94	Wood

TD102	80	**Lading Quantity**	X	N0	1/7	Used
		Description: Number of units (pieces) of the lading commodity				
TD106	187	**Weight Qualifier**	O	ID	1/2	Used
		Description: Code defining the type of weight				
		CodeList Summary (Total Codes: 52, Included: 2)				

Code	Name
G	Gross Weight
N	Actual Net Weight

March 1, 2010:
Code included.

TD107	81	**Weight**	X	R2	1/10	Used
		Description: Numeric value of weight				
TD108	355	**Unit or Basis for Measurement Code**	X	ID	2/2	Used
		Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				
		CodeList Summary (Total Codes: 888, Included: 2)				

Code	Name
KG	Kilogram
LB	Pound

Syntax Rules:

1. C0102 - If TD101 is present, then TD102 is required.
2. C0304 - If TD103 is present, then TD104 is required.
3. C0607 - If TD106 is present, then TD107 is required.
4. P0708 - If either TD107 or TD108 is present, then the other is required.
5. P0910 - If either TD109 or TD110 is present, then the other is required.

MAN Marks and Numbers Information

Pos: 1900	Max: >1
Detail - Optional	
Loop: HL	Elements: 3

User Option (Usage): Used

Purpose: To indicate identifying marks and numbers for shipping containers

This segment, at the tare level, is used to specify the identification number for the pallet.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
MAN01	88	**Marks and Numbers Qualifier**	M	ID	1/2	Must use
		Description: Code specifying the application or source of Marks and Numbers (87)				
		CodeList Summary (Total Codes: 28, Included: 3)				
		Code **Name**				
		GM EAN.UCC Serial Shipping Container Code (SSCC) and Application Identifier				
		SI Self-Identifying Container via Radio Frequency ID Device				
		Description: *Inbound containers that do not need manual routing*				
		UC U.P.C. Shipping Container Code				
		GTIN -14 for the pallet.				
MAN02	87	**Marks and Numbers**	M	AN	1/48	Must use
		Description: Marks and numbers used to identify a shipment or parts of a shipment				
MAN03	87	**Marks and Numbers**	O	AN	1/48	Used
		Description: Marks and numbers used to identify a shipment or parts of a shipment				

Syntax Rules:

1. C0605 - If MAN06 is present, then MAN05 is required.
2. P0405 - If either MAN04 or MAN05 is present, then the other is required.

Semantics:

1. MAN01/MAN02 and MAN04/MAN05 may be used to identify two different marks and numbers assigned to the same physical container.
2. When both MAN02 and MAN03 are used, MAN02 is the starting number of a sequential range and MAN03 is the ending number of that range.
3. When both MAN05 and MAN06 are used, MAN05 is the starting number of a sequential range, and MAN06 is the ending number of that range.

DTM Date/Time Reference

Pos: 2000	Max: 10
Detail - Optional	
Loop: HL	Elements: 3

User Option (Usage): Used

Purpose: To specify pertinent dates and times

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM01	374	**Date/Time Qualifier**	M	ID	3/3	Must use
		Description: Code specifying type of date or time, or both date and time				
		CodeList Summary (Total Codes: 1289, Included: 2)				
		Code **Name** 094 Manufacture 511 Shelf Life Expiration				
DTM02	373	**Date**	X	DT	8/8	Used
		Description: Date expressed as CCYYMMDD where CC represents the first two digits of the calendar year				
DTM03	337	**Time**	X	TM	4/8	Used
		Description: Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)				

Syntax Rules:

1. C0403 - If DTM04 is present, then DTM03 is required.
2. P0506 - If either DTM05 or DTM06 is present, then the other is required.
3. R020305 - At least one of DTM02, DTM03 or DTM05 is required.

PAL Pallet Type and Load Characteristics

Pos: 2150	Max: 1
Detail - Optional	
Loop: HL	Elements: 12

User Option (Usage): Used

Purpose: To identify the type and physical attributes of the pallet, and, gross weight, gross volume, and height of the load and the pallet

Typically, either the TD1 or PAL segment would be used. However, if both the TD1 and PAL segments are needed, measurement value data elements may be included in only one of the segments. Those data elements are - in the PAL segment: PAL11, PAL12, PAL13, PAL14; in the TD1 segment: TD106, TD107, TD108, TD109, TD110.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PAL01	883	**Pallet Type Code**	O	ID	1/2	Used
		Description: Code indicating the type of pallet				
		CodeList Summary (Total Codes: 18, Included: 9)				
		Code Name 0 Hard Wood 1 Aluminum 2 As Specified by the Department of Transportation (DOT) 3 Metal 4 Standard 5 Steel 6 Wood 7 Slip sheet **Description:** *Typically cardboard or plastic sheets used to hold product for storage or transportation* 8 Soft Wood				
PAL02	884	**Pallet Tiers**	O	N0	1/3	Used
		Description: The number of layers per pallet				
PAL03	885	**Pallet Blocks**	O	N0	1/3	Used
		Description: The number of pieces (cartons) per layer on the pallet				
PAL04	356	**Pack**	O	N0	1/6	Used
		Description: The number of inner containers, or number of eaches if there are no inner containers, per outer container				
PAL09	65	**Height**	X	R2	1/8	Used
		Description: Vertical dimension of an object measured when the object is in the upright position				
PAL10	355	**Unit or Basis for Measurement Code**	X	ID	2/2	Used
		Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				
		CodeList Summary (Total Codes: 888, Included: 6)				

Code	Name
CM	Centimeter
EX	Feet, Inches and Fraction
EY	Feet, Inches and Decimal
IN	Inch
MM	Millimeter
MR	Meter

PAL11 384 **Gross Weight per Pack** X R2 1/9 Used

Description: Numeric value of gross weight per pack

PAL12 355 **Unit or Basis for Measurement Code** X ID 2/2 Used

Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken

CodeList Summary (Total Codes: 888, Included: 2)

Code	Name
KG	Kilogram
LB	Pound

PAL13 385 **Gross Volume per Pack** X R2 1/9 Used

Description: Numeric value of gross volume per pack

PAL14 355 **Unit or Basis for Measurement Code** X ID 2/2 Used

Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken

CodeList Summary (Total Codes: 888, Included: 2)

Code	Name
CF	Cubic Feet
CR	Cubic Meter

PAL15 399 **Pallet Exchange Code** O ID 1/1 Used

Description: Code specifying pallet exchange instructions

CodeList Summary (Total Codes: 5, Included: 5)

Code	Name
1	No Exchange/No Return
2	Exchange Pallets
3	Return Pallets
4	Pallets to be Purchased by Customer
5	Third-Party Pallet Exchange

Description: *A pallet exchange program where a third party rents pallets for internal or external use*

PAL17 1699 **Pallet Structure Code** O ID 1/1 Used

Description: Code identifying the pallet structure

CodeList Summary (Total Codes: 3, Included: 3)

Code	Name
A	Mixed Pallet (Multi-sku Pallet with Pre-assigned U.P.C.)

Code	Name
B	Display Pallet (Multi-sku Pallet for Display with Pre-assigned U.P.C.)
C	Picked Pallet (Multi-sku Pallet without Pre-assigned U.P.C.)

Syntax Rules:

1. C0710 - If PAL07 is present, then PAL10 is required.
2. C0810 - If PAL08 is present, then PAL10 is required.
3. C0910 - If PAL09 is present, then PAL10 is required.
4. L10070809 - If PAL10 is present, then at least one of PAL07, PAL08 or PAL09 is required.
5. P0506 - If either PAL05 or PAL06 is present, then the other is required.
6. P1112 - If either PAL11 or PAL12 is present, then the other is required.
7. P1314 - If either PAL13 or PAL14 is present, then the other is required.

Semantics:

1. PAL04 (Pack) is the number of pieces on the pallet.
2. PAL05 (Unit Weight) is the weight of the pallet alone, before loading.
3. PAL07 and PAL08 (Length and Width) are the dimensions of the pallet before loading.
4. PAL09 (Height) is the height of the pallet and load.
5. PAL11 and PAL13 (Gross Weight and Gross Volume) are measured after loading and includes the pallet.

Loop Pack

Pos: 0100	Repeat: 200000
Mandatory	
Loop: HL	Elements: N/A

User Option (Usage): Must use

Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

March 1, 2010:
This loop provides information about the case/pack.

Loop Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat	Usage
0100	HL	Hierarchical Level - Pack	M	1		Must use
0200	LIN	Item Identification	O	1		Used
0300	SN1	Item Detail (Shipment)	O	1		Must use
0600	PO4	Item Physical Details	O	1		Used
0700	PID	Product/Item Description	O	200		Used
1100	TD1	Carrier Details (Quantity and Weight)	O	20		Used
1500	REF	Reference Information	O	>1		Used
1900	MAN	Marks and Numbers Information	O	>1		Used
2000	DTM	Date/Time Reference	O	10		Used

HL Hierarchical Level - Pack

Pos: 0100	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 3

User Option (Usage): Must use

Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

If the pack has a GTIN Case Code, the LIN segment is used to indicate the GTIN Case Code, and the SN1 segment is used to report the number of cases.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL01	628	**Hierarchical ID Number**	M	AN	1/12	Must use
		Description: A unique number assigned by the sender to identify a particular data segment in a hierarchical structure				
HL02	734	**Hierarchical Parent ID Number**	O	AN	1/12	Used
		Description: Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to				
HL03	735	**Hierarchical Level Code**	M	ID	1/2	Must use
		Description: Code defining the characteristic of a level in a hierarchical structure				
		HL03 indicates the application context of the series of segments following the current HL segment up to the next occurrence of an HL segment, or the CTT segment, e.g., Shipment, Order, Tare, Pack, and Item.				

CodeList Summary (Total Codes: 250, Included: 1)

Code	Name
P	Pack

LIN Item Identification

Pos: 0200	Max: 1
Detail - Optional	
Loop: HL	Elements: 11

User Option (Usage): Used

Purpose: To specify basic item identification data

To meet USDA Country of Origin Labeling (COOL) legislation requirements, the ISO Country Code(s) may be presented in the LIN segment, using the data element 235/234 pair. GS1 US recommends the use of the ISO 3166-1 alpha-2 codes.

Example: Product of USA and Canada with a GTIN of 061414000010,
*LIN*01*UP*061414000010*CH*US CA~*

March 1, 2010:
The LT - Lot (batch) code in DE 235 is used at the Pack level with BSN05 values of '0001' or '0008'.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
LIN01	350	**Assigned Identification**	O	AN	1/20	Used
		Description: Alphanumeric characters assigned for differentiation within a transaction set				
LIN02	235	**Product/Service ID Qualifier**	M	ID	2/2	Must use

Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)

The codes listed for LIN02 apply to every occurrence of data element 235 in the LIN segment with the following exceptions:

1. Codes 'CA' and 'UK' are mutually exclusive: only one of these codes may be used in this LIN segment.

2. Codes 'EN', 'EO' and 'UP' are mutually exclusive: only one of these may be used in this LIN segment.

CodeList Summary (Total Codes: 532, Included: 6)

Code	Name
CA	Case
	GTIN EAN/UCC-14 digit Shipping Unit - the data structure for a 14-digit GS1 Global Trade Item Number that uniquely identifies a manufacturer's shipping unit encompassing non-consumer trade units such as cases, pallets and inner packs. The number includes the packaging indicator and check digit.
CH	Country of Origin Code
	March 1, 2010: *Only used at the Pack level when it pertains to all cases for this product.*
IN	Buyer's Item Number
LT	Lot Number
	This code may only be used if the Batch HL is not used.
UA	U.P.C./EAN Case Code (2-5-5)
	March 1, 2010: *This code was officially deleted with Version 005020 (May 2005).* *If used, the data element 234 value is NOT a GTIN.*
UK	GTIN 14-digit Data Structure
	Description: *Data structure for the 14 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*

Code	Name
	See Code Source 41.

LIN03	234	**Product/Service ID**	M	AN	1/48	Must use

Description: Identifying number for a product or service

LIN04	235	**Product/Service ID Qualifier**	X	ID	2/2	Used

Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)

CodeList Summary (Total Codes: 532, Included: 6)

Code	Name
CA	Case
	GTIN EAN/UCC-14 digit Shipping Unit - the data structure for a 14-digit GS1 Global Trade Item Number that uniquely identifies a manufacturer's shipping unit encompassing non-consumer trade units such as cases, pallets and inner packs. The number includes the packaging indicator and check digit.
CH	Country of Origin Code
	March 1, 2010: *Only used at the Pack level when it pertains to all cases for this product.*
IN	Buyer's Item Number
LT	Lot Number
	This code may only be used if the Batch HL is not used.
UA	U.P.C./EAN Case Code (2-5-5)
	March 1, 2010: *This code was officially deleted with Version 005020 (May 2005).* *If used, the data element 234 value is NOT a GTIN.*
UK	GTIN 14-digit Data Structure
	Description: *Data structure for the 14 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*
	See Code Source 41.

LIN05	234	**Product/Service ID**	X	AN	1/48	Used

Description: Identifying number for a product or service

LIN06	235	**Product/Service ID Qualifier**	X	ID	2/2	Used

Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)

CodeList Summary (Total Codes: 532, Included: 6)

Code	Name
CA	Case
	GTIN EAN/UCC-14 digit Shipping Unit - the data structure for a 14-digit GS1 Global Trade Item Number that uniquely identifies a manufacturer's shipping unit encompassing non-consumer trade units such as cases, pallets and inner packs. The number includes the packaging indicator and check digit.
CH	Country of Origin Code
	March 1, 2010: *Only used at the Pack level when it pertains to all cases for this product.*
IN	Buyer's Item Number
LT	Lot Number
	This code may only be used if the Batch HL is not used.

Code	Name
UA	U.P.C./EAN Case Code (2-5-5)
	March 1, 2010: *This code was officially deleted with Version 005020 (May 2005).* *If used, the data element 234 value is NOT a GTIN.*
UK	GTIN 14-digit Data Structure
	Description: *Data structure for the 14 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*
	See Code Source 41.

LIN07	234	**Product/Service ID**	X	AN	1/48	Used

Description: Identifying number for a product or service

LIN08	235	**Product/Service ID Qualifier**	X	ID	2/2	Used

Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)

CodeList Summary (Total Codes: 532, Included: 6)

Code	Name
CA	Case
	GTIN EAN/UCC-14 digit Shipping Unit - the data structure for a 14-digit GS1 Global Trade Item Number that uniquely identifies a manufacturer's shipping unit encompassing non-consumer trade units such as cases, pallets and inner packs. The number includes the packaging indicator and check digit.
CH	Country of Origin Code
	March 1, 2010: *Only used at the Pack level when it pertains to all cases for this product.*
IN	Buyer's Item Number
LT	Lot Number
	This code may only be used if the Batch HL is not used.
UA	U.P.C./EAN Case Code (2-5-5)
	March 1, 2010: *This code was officially deleted with Version 005020 (May 2005).* *If used, the data element 234 value is NOT a GTIN.*
UK	GTIN 14-digit Data Structure
	Description: *Data structure for the 14 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*
	See Code Source 41.

LIN09	234	**Product/Service ID**	X	AN	1/48	Used

Description: Identifying number for a product or service

LIN10	235	**Product/Service ID Qualifier**	X	ID	2/2	Used

Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)

CodeList Summary (Total Codes: 532, Included: 6)

Code	Name
CA	Case
	GTIN EAN/UCC-14 digit Shipping Unit - the data structure for a 14-digit GS1 Global Trade Item Number that uniquely identifies a manufacturer's shipping unit encompassing non-consumer trade units such as cases, pallets and inner packs.

Code	Name
	The number includes the packaging indicator and check digit.
CH	Country of Origin Code
	March 1, 2010: *Only used at the Pack level when it pertains to all cases for this product.*
IN	Buyer's Item Number
LT	Lot Number
	This code may only be used if the Batch HL is not used.
UA	U.P.C./EAN Case Code (2-5-5)
	March 1, 2010: *This code was officially deleted with Version 005020 (May 2005).* *If used, the data element 234 value is NOT a GTIN.*
UK	GTIN 14-digit Data Structure
	Description: *Data structure for the 14 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*
	See Code Source 41.

LIN11	234	**Product/Service ID**	X	AN	1/48	Used

Description: Identifying number for a product or service

Syntax Rules:

1. P0405 - If either LIN04 or LIN05 is present, then the other is required.
2. P0607 - If either LIN06 or LIN07 is present, then the other is required.
3. P0809 - If either LIN08 or LIN09 is present, then the other is required.
4. P1011 - If either LIN10 or LIN11 is present, then the other is required.
5. P1213 - If either LIN12 or LIN13 is present, then the other is required.
6. P1415 - If either LIN14 or LIN15 is present, then the other is required.
7. P1617 - If either LIN16 or LIN17 is present, then the other is required.
8. P1819 - If either LIN18 or LIN19 is present, then the other is required.
9. P2021 - If either LIN20 or LIN21 is present, then the other is required.
10. P2223 - If either LIN22 or LIN23 is present, then the other is required.
11. P2425 - If either LIN24 or LIN25 is present, then the other is required.
12. P2627 - If either LIN26 or LIN27 is present, then the other is required.
13. P2829 - If either LIN28 or LIN29 is present, then the other is required.
14. P3031 - If either LIN30 or LIN31 is present, then the other is required.

Semantics:

1. LIN01 is the line item identification

SN1 Item Detail (Shipment)

Pos: 0300	Max: 1
Detail - Optional	
Loop: HL	Elements: 2

User Option (Usage): Must use

Purpose: To specify line-item detail relative to shipment

March 1, 2010:
Quantity of cases of product specified in LIN segment.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SN102	382	**Number of Units Shipped**	M	R4	1/10	Must use
		Description: Numeric value of units shipped in manufacturer's shipping units for a line item or transaction set				
SN103	355	**Unit or Basis for Measurement Code**	M	ID	2/2	Must use
		Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				
		CodeList Summary (Total Codes: 888, Included: 4)				
		Code **Name**				
		BX Box				
		CA Case				
		TE Tote				
		Y4 Tub				
		Description: *A measure used to identify a storage container*				

Syntax Rules:

1. P0506 - If either SN105 or SN106 is present, then the other is required.

Semantics:

1. SN101 is the ship notice line-item identification.
2. SN105 is quantity ordered.

PO4 Item Physical Details

Pos: 0600	Max: 1
Detail - Optional	
Loop: HL	Elements: 3

User Option (Usage): Used

Purpose: To specify the physical qualities, packaging, weights, and dimensions relating to the item

This segment is used to provide the billed weight for random weight products.

March 1, 2010:
Either the TD1 or PO4 segment may be used, but not both.

March 1, 2010:
If more than one weight value is required, use the TD1 segment.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PO405	187	**Weight Qualifier**	O	ID	1/2	Used
		Description: Code defining the type of weight				
		CodeList Summary (Total Codes: 52, Included: 1)				
		Code **Name**				
		N Actual Net Weight				
		Invoicing weight.				
PO406	384	**Gross Weight per Pack**	X	R2	1/9	Used
		Description: Numeric value of gross weight per pack				
PO407	355	**Unit or Basis for Measurement Code**	X	ID	2/2	Used
		Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				
		CodeList Summary (Total Codes: 888, Included: 2)				
		Code **Name**				
		KG Kilogram				
		LB Pound				

Syntax Rules:

1. C0506 - If PO405 is present, then PO406 is required.
2. C1013 - If PO410 is present, then PO413 is required.
3. C1113 - If PO411 is present, then PO413 is required.
4. C1213 - If PO412 is present, then PO413 is required.
5. C1716 - If PO417 is present, then PO416 is required.
6. C1804 - If PO418 is present, then PO404 is required.
7. L13101112 - If PO413 is present, then at least one of PO410, PO411 or PO412 is required.
8. P0203 - If either PO402 or PO403 is present, then the other is required.
9. P0607 - If either PO406 or PO407 is present, then the other is required.
10. P0809 - If either PO408 or PO409 is present, then the other is required.

Semantics:

1. PO415 is used to indicate the relative layer of this package or range of packages within the layers of packaging. Relative Position 1 (value R1) is the innermost package.

2. PO416 is the package identifier or the beginning package identifier in a range of identifiers.
3. PO417 is the ending package identifier in a range of identifiers.
4. PO418 is the number of packages in this layer.

PID Product/Item Description

Pos: 0700	Max: 200
Detail - Optional	
Loop: HL	Elements: 3

User Option (Usage): Used

Purpose: To describe a product or process in coded or free-form format

The following guidance has been developed to assist trade parties in the transmittal of Country of Origin Labeling information persuant to the USDA requirements.
To convey the USDA Country of Origin Labeling (COOL) information, use the PID segment as follows:
PID01 - F
PID02 - MSG
PID03 - not used
PID04 - not used
PID05 - country of origin information, ordered as mandated by the USDA legislation.

Example: A product of USA and Canada would be shown as:
*PID*F*MSG***PRODUCT OF USA AND CANADA~. (The * and ~ are delimiter values.)*

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PID01	349	**Item Description Type**	M	ID	1/1	Must use
		Description: Code indicating the format of a description				
		CodeList Summary (Total Codes: 3, Included: 1)				
		Code **Name**				
		F Free-form				
PID02	750	**Product/Process Characteristic Code**	O	ID	2/3	Used
		Description: Code identifying the general class of a product or process characteristic				
		CodeList Summary (Total Codes: 270, Included: 1)				
		Code **Name**				
		MSG Market Segment				
		Description: *General market classification for which a product is intended*				
PID05	352	**Description**	X	AN	1/80	Used
		Description: A free-form description to clarify the related data elements and their content				

Syntax Rules:

1. C0403 - If PID04 is present, then PID03 is required.
2. C0703 - If PID07 is present, then PID03 is required.
3. C0804 - If PID08 is present, then PID04 is required.
4. C0905 - If PID09 is present, then PID05 is required.
5. R0405 - At least one of PID04 or PID05 is required.

Semantics:

1. Use PID03 to indicate the organization that publishes the code list being referred to.
2. PID04 should be used for industry-specific product description codes.
3. PID08 describes the physical characteristics of the product identified in PID04. A "Y" indicates that the specified attribute applies to this item; an "N" indicates it does not apply. Any other value is indeterminate.

4. PID09 is used to identify the language being used in PID05.

TD1 Carrier Details (Quantity and Weight)

Pos: 1100	Max: 20
Detail - Optional	
Loop: HL	Elements: 3

User Option (Usage): Used

Purpose: To specify the transportation details relative to commodity, weight, and quantity

Either the TD1 or PO4 segment may be used, but not both.

March 1, 2010:
Segment included.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD106	187	**Weight Qualifier**	O	ID	1/2	Used
		Description: Code defining the type of weight				
		CodeList Summary (Total Codes: 52, Included: 2)				
		Code **Name** G Gross Weight N Actual Net Weight				
		March 1, 2010: *Invoicing weight.*				
TD107	81	**Weight**	X	R2	1/10	Used
		Description: Numeric value of weight				
TD108	355	**Unit or Basis for Measurement Code**	X	ID	2/2	Used
		Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				
		CodeList Summary (Total Codes: 888, Included: 2)				
		Code **Name** KG Kilogram LB Pound				

Syntax Rules:

1. C0102 - If TD101 is present, then TD102 is required.
2. C0304 - If TD103 is present, then TD104 is required.
3. C0607 - If TD106 is present, then TD107 is required.
4. P0708 - If either TD107 or TD108 is present, then the other is required.
5. P0910 - If either TD109 or TD110 is present, then the other is required.

REF Reference Information

Pos: 1500	Max: >1
Detail - Optional	
Loop: HL	Elements: 2

User Option (Usage): Used

Purpose: To specify identifying information

March 1, 1010:
Segment included.
*REF*1J or REF*SE, if used, may be used with either the Pack HL or Batch HL - but not both.*

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	128	**Reference Identification Qualifier**	M	ID	2/3	Must use
		Description: Code qualifying the Reference Identification				
		CodeList Summary (Total Codes: 1777, Included: 2)				
		Code **Name**				
		1J Facility ID Number				
		March 1, 2010: *Also used to identify the USDA Establishment Number.*				
		SE Serial Number				
		Manufacturer-assigned serial number.				
REF02	127	**Reference Identification**	X	AN	1/50	Used
		Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier				

Syntax Rules:

1. R0203 - At least one of REF02 or REF03 is required.

MAN Marks and Numbers Information

Pos: 1900	Max: >1
Detail - Optional	
Loop: HL	Elements: 3

User Option (Usage): Used

Purpose: To indicate identifying marks and numbers for shipping containers

March 1, 2010:
This segment, at the pack level, is used to specify the identification on the case(s).
Do not use the Pack HL MAN segment if the Batch HL MAN segment is used.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
MAN01	88	**Marks and Numbers Qualifier**	M	ID	1/2	Must use
		Description: Code specifying the application or source of Marks and Numbers (87)				
		CodeList Summary (Total Codes: 28, Included: 4)				
		Code **Name**				
		AI UCC/EAN-128 Application Identifier (AI) and Data				
		GM EAN.UCC Serial Shipping Container Code (SSCC) and Application Identifier				
		SI Self-Identifying Container via Radio Frequency ID Device				
		Description: *Inbound containers that do not need manual routing*				
		UC U.P.C. Shipping Container Code				
		GTIN-14 for the carton.				
MAN02	87	**Marks and Numbers**	M	AN	1/48	Must use
		Description: Marks and numbers used to identify a shipment or parts of a shipment				
MAN03	87	**Marks and Numbers**	O	AN	1/48	Used
		Description: Marks and numbers used to identify a shipment or parts of a shipment				

Syntax Rules:

1. C0605 - If MAN06 is present, then MAN05 is required.
2. P0405 - If either MAN04 or MAN05 is present, then the other is required.

Semantics:

1. MAN01/MAN02 and MAN04/MAN05 may be used to identify two different marks and numbers assigned to the same physical container.
2. When both MAN02 and MAN03 are used, MAN02 is the starting number of a sequential range and MAN03 is the ending number of that range.
3. When both MAN05 and MAN06 are used, MAN05 is the starting number of a sequential range, and MAN06 is the ending number of that range.

DTM Date/Time Reference

Pos: 2000	Max: 10
Detail - Optional	
Loop: HL	Elements: 3

User Option (Usage): Used

Purpose: To specify pertinent dates and times

If a Manufacture or Shelf Life date is available for the Pack, the supplier is encouraged to include this information in the data file.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM01	374	**Date/Time Qualifier**	M	ID	3/3	Must use
		Description: Code specifying type of date or time, or both date and time				
		CodeList Summary (Total Codes: 1289, Included: 2)				
		Code **Name** 094 Manufacture 511 Shelf Life Expiration *Sell-by date.*				
DTM02	373	**Date**	X	DT	8/8	Used
		Description: Date expressed as CCYYMMDD where CC represents the first two digits of the calendar year				
DTM03	337	**Time**	X	TM	4/8	Used
		Description: Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)				

Syntax Rules:

1. C0403 - If DTM04 is present, then DTM03 is required.
2. P0506 - If either DTM05 or DTM06 is present, then the other is required.
3. R020305 - At least one of DTM02, DTM03 or DTM05 is required.

Loop Batch

Pos: 0100	Repeat: 1
Optional	
Loop: HL	Elements: N/A

User Option (Usage): Used

Purpose: Batch hierarchy level

March 1, 2010:
This loop provides information about a batch of product inside the Pack.

March 1, 2010:
This loop is only used with BSN05 value of 'ZZZZ'.

Loop Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat	Usage
0100	HL	Hierarchical Level	M	1		Must use
0200	LIN	Item Identification	O	1		Used
0300	SN1	Item Detail (Shipment)	O	1		Used
0600	PO4	Item Physical Details	O	1		Used
1500	REF	Reference Information	O	>1		Used
1900	MAN	Marks and Numbers Information	O	>1		Used
2000	DTM	Date/Time Reference	O	10		Used

HL Hierarchical Level

Pos: 0100	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 2

User Option (Usage): Must use

Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Batch HL

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL01	628	**Hierarchical ID Number**	M	AN	1/12	Must use
		Description: A unique number assigned by the sender to identify a particular data segment in a hierarchical structure				
		The value for HL01 for this level (shipment) is 1.				
HL03	735	**Hierarchical Level Code**	M	ID	1/2	Must use
		Description: Code defining the characteristic of a level in a hierarchical structure				
		CodeList Summary (Total Codes: 250, Included: 1)				
		Code **Name**				
		S Shipment				

Comments:

1. The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to line-item data.
2. The HL segment defines a top-down/left-right ordered structure.
3. HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be "1" for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.
4. HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
5. HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.
6. HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.

LIN Item Identification

Pos: 0200	Max: 1
Detail - Optional	
Loop: HL	Elements: 4

User Option (Usage): Used

Purpose: To specify basic item identification data

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
LIN02	235	**Product/Service ID Qualifier**	M	ID	2/2	Must use
		Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234) **CodeList Summary** (Total Codes: 518, Included: 1) **Code** **Name** LT Lot Number *Batch Number*				
LIN03	234	**Product/Service ID**	M	AN	1/80	Must use
		Description: Identifying number for a product or service				
LIN04	235	**Product/Service ID Qualifier**	X	ID	2/2	Used
		Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234) **CodeList Summary** (Total Codes: 518, Included: 1) **Code** **Name** CH Country of Origin Code *The Country of Origin for this batch of product.* *This code is used at the Batch HL if it has not been used at the Pack level.*				
LIN05	234	**Product/Service ID**	X	AN	1/80	Used
		Description: Identifying number for a product or service				

Syntax Rules:

1. P0405 - If either LIN04 or LIN05 is present, then the other is required.
2. P0607 - If either LIN06 or LIN07 is present, then the other is required.
3. P0809 - If either LIN08 or LIN09 is present, then the other is required.
4. P1011 - If either LIN10 or LIN11 is present, then the other is required.
5. P1213 - If either LIN12 or LIN13 is present, then the other is required.
6. P1415 - If either LIN14 or LIN15 is present, then the other is required.
7. P1617 - If either LIN16 or LIN17 is present, then the other is required.
8. P1819 - If either LIN18 or LIN19 is present, then the other is required.
9. P2021 - If either LIN20 or LIN21 is present, then the other is required.
10. P2223 - If either LIN22 or LIN23 is present, then the other is required.
11. P2425 - If either LIN24 or LIN25 is present, then the other is required.
12. P2627 - If either LIN26 or LIN27 is present, then the other is required.
13. P2829 - If either LIN28 or LIN29 is present, then the other is required.
14. P3031 - If either LIN30 or LIN31 is present, then the other is required.

Semantics:

1. LIN01 is the line item identification

Comments:

1. See the Data Dictionary for a complete list of IDs.
2. LIN02 through LIN31 provide for fifteen different product/service IDs for each item. For example: Case, Color, Drawing No., ISBN No., Model No., or SKU.

SN1 Item Detail (Shipment)

Pos: 0300	Max: 1
Detail - Optional	
Loop: HL	Elements: 2

User Option (Usage): Used

Purpose: To specify line-item detail relative to shipment

Quantity of cases for the batch.
The sum of the individual Batch HL SN1 quantities should total to the Pack HL SN1.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SN102	382	**Number of Units Shipped**	M	R	1/10	Must use
		Description: Numeric value of units shipped in manufacturer's shipping units for a line item or transaction set				
SN103	355	**Unit or Basis for Measurement Code**	M	ID	2/2	Must use
		Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				
		CodeList Summary (Total Codes: 888, Included: 4)				
		Code **Name**				
		BX Box				
		CA Case				
		TE Tote				
		Y4 Tub				
		Description: *A measure used to identify a storage container*				

Syntax Rules:

1. P0506 - If either SN105 or SN106 is present, then the other is required.

Semantics:

1. SN101 is the ship notice line-item identification.
2. SN105 is quantity ordered.

Comments:

1. SN103 defines the unit of measurement for both SN102 and SN104.

PO4 Item Physical Details

Pos: 0600	Max: 1
Detail - Optional	
Loop: HL	Elements: 3

User Option (Usage): Used

Purpose: To specify the physical qualities, packaging, weights, and dimensions relating to the item

PO405, PO406, and PO407 are primarily used for perishable products.
Weight of the batch.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PO405	187	**Weight Qualifier**	O	ID	1/2	Used
		Description: Code defining the type of weight				
		CodeList Summary (Total Codes: 53, Included: 1)				
		Code **Name**				
		N Actual Net Weight				
		Invoicing weight.				
PO406	384	**Gross Weight per Pack**	X	R	1/9	Used
		Description: Numeric value of gross weight per pack				
PO407	355	**Unit or Basis for Measurement Code**	X	ID	2/2	Used
		Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				
		CodeList Summary (Total Codes: 895, Included: 2)				
		Code **Name**				
		KG Kilogram				
		LB Pound				

Syntax Rules:

1. P0203 - If either PO402 or PO403 is present, then the other is required.
2. C0506 - If PO405 is present, then PO406 is required.
3. P0607 - If either PO406 or PO407 is present, then the other is required.
4. P0809 - If either PO408 or PO409 is present, then the other is required.
5. C1013 - If PO410 is present, then PO413 is required.
6. C1113 - If PO411 is present, then PO413 is required.
7. C1213 - If PO412 is present, then PO413 is required.
8. L13101112 - If PO413 is present, then at least one of PO410, PO411 or PO412 is required.
9. C1716 - If PO417 is present, then PO416 is required.
10. C1804 - If PO418 is present, then PO404 is required.

Semantics:

1. PO415 is used to indicate the relative layer of this package or range of packages within the layers of packaging. Relative Position 1 (value R1) is the innermost package.
2. PO416 is the package identifier or the beginning package identifier in a range of identifiers.
3. PO417 is the ending package identifier in a range of identifiers.
4. PO418 is the number of packages in this layer.

Comments:

1. PO403 - The "Unit or Basis for Measure Code" in this segment position is for purposes of defining the unit of measure of the "Size" identified in the PO402. For example: If the carton contains 24 12-Ounce packages, it would be described as follows: Data element 356 = "24"; Data element 357 = "12"; Data element 355 = "OZ".
2. PO413 defines the unit of measure for PO410, PO411, and PO412.

REF Reference Information

Pos: 1500	Max: >1
Detail - Optional	
Loop: HL	Elements: 2

User Option (Usage): Used

Purpose: To specify identifying information

March 1, 2010:
*REF*1J or REF*SE, if used, may be used with either the Pack HL or Batch HL - but not both.*

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	128	**Reference Identification Qualifier** **Description:** Code qualifying the Reference Identification **CodeList Summary** (Total Codes: 1795, Included: 2) **Code** **Name** 1J Facility ID Number *Includes USDA Establishment Number.* SE Serial Number *Manufacturer-assigned serial number.*	M	ID	2/3	Must use
REF02	127	**Reference Identification** **Description:** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	X	AN	1/80	Used

Syntax Rules:

1. R0203 - At least one of REF02 or REF03 is required.

Semantics:

1. REF04 contains data relating to the value cited in REF02.

MAN Marks and Numbers Information

Pos: 1900	Max: >1
Detail - Optional	
Loop: HL	Elements: 2

User Option (Usage): Used

Purpose: To indicate identifying marks and numbers for shipping containers

March 1, 2010:
This segment, at the pack level, is used to specify the identification markings on the case(s).
Do not use the Batch HL MAN segment if the Pack HL MAN segment is used.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
MAN01	88	**Marks and Numbers Qualifier**	M	ID	1/2	Must use
		Description: Code specifying the application or source of Marks and Numbers (87)				
		CodeList Summary (Total Codes: 28, Included: 2)				
		Code Name				
		GM EAN.UCC Serial Shipping Container Code (SSCC) and Application Identifier				
		UC U.P.C. Shipping Container Code				
MAN02	87	**Marks and Numbers**	M	AN	1/48	Must use
		Description: Marks and numbers used to identify a shipment or parts of a shipment				

Syntax Rules:

1. P0405 - If either MAN04 or MAN05 is present, then the other is required.
2. C0605 - If MAN06 is present, then MAN05 is required.

Semantics:

1. MAN01/MAN02 and MAN04/MAN05 may be used to identify two different marks and numbers assigned to the same physical container.
2. When both MAN02 and MAN03 are used, MAN02 is the starting number of a sequential range and MAN03 is the ending number of that range.
3. When both MAN05 and MAN06 are used, MAN05 is the starting number of a sequential range, and MAN06 is the ending number of that range.

Comments:

1. When MAN01 contains code "UC" (U.P.C. Shipping Container Code) and MAN05/MAN06 contain a range of ID numbers, MAN03 is not used. The reason for this is that the U.P.C. Shipping Container code is the same on every carton that is represented in the range in MAN05/MAN06.
2. MAN03 and/or MAN06 are only used when sending a range(s) of ID numbers.
3. When both MAN02/MAN03 and MAN05/MAN06 are used to send ranges of ID numbers, the integrity of the two ID numbers must be maintained.

DTM Date/Time Reference

Pos: 2000	Max: 10
Detail - Optional	
Loop: HL	Elements: 2

User Option (Usage): Used

Purpose: To specify pertinent dates and times

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM01	374	**Date/Time Qualifier**	M	ID	3/3	Must use
		Description: Code specifying type of date or time, or both date and time				
		CodeList Summary (Total Codes: 1304, Included: 6)				
		Code **Name**				
		036 Expiration				
		Description: *Date coverage expires*				
		094 Manufacture				
		208 Lot Number Expiration				
		405 Production				
		Description: *Used to identify dates and times that operations or processes were performed*				
		510 Date Packed				
		511 Shelf Life Expiration				
DTM02	373	**Date**	X	DT	8/8	Used
		Description: Date expressed as CCYYMMDD where CC represents the first two digits of the calendar year				

Syntax Rules:

1. R020305 - At least one of DTM02, DTM03 or DTM05 is required.
2. C0403 - If DTM04 is present, then DTM03 is required.
3. P0506 - If either DTM05 or DTM06 is present, then the other is required.

Loop Item

Pos: 0100	Repeat: 200000
Mandatory	
Loop: HL	Elements: N/A

User Option (Usage): Must use

Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

March 1, 2010:
The Item HL is used with BSN05 value of '0001'.
The Item HL is optional with BSN05 value of 'ZZZZ'.

Loop Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat	Usage
0100	HL	Hierarchical Level - Item	M	1		Must use
0200	LIN	Item Identification	O	1		Used
0300	SN1	Item Detail (Shipment)	O	1		Used
0600	PO4	Item Physical Details	O	1		Used
0700	PID	Product/Item Description	O	200		Used
1000	PKG	Marking, Packaging, Loading	O	25		Used
1500	REF	Reference Information	O	>1		Used
2000	DTM	Date/Time Reference	O	10		Used

HL Hierarchical Level - Item

Pos: 0100	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 3

User Option (Usage): Must use

Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

This segment is only used when item level information is being sent.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL01	628	**Hierarchical ID Number**	M	AN	1/12	Must use
		Description: A unique number assigned by the sender to identify a particular data segment in a hierarchical structure				
HL02	734	**Hierarchical Parent ID Number**	O	AN	1/12	Used
		Description: Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to				
HL03	735	**Hierarchical Level Code**	M	ID	1/2	Must use
		Description: Code defining the characteristic of a level in a hierarchical structure				
		HL03 indicates the application context of the series of segments following the current HL segment up to the next occurrence of an HL segment, or the CTT segment, e.g., Shipment, Order, Tare, Pack, and Item.				

CodeList Summary (Total Codes: 250, Included: 1)

Code	Name
I	Item

LIN Item Identification

Pos: 0200	Max: 1
Detail - Optional	
Loop: HL	Elements: 6

User Option (Usage): Used

Purpose: To specify basic item identification data

There is one LIN segment for each consumer unit.

For all occurrences of data element 235 /234 in this segment:
(1)Codes UK and CA are mutually exclusive and only one of these codes may be used in the LIN segment.
(2)Codes EN, EO and UP are mutually exclusve and only one of these codes may be used in the LIN segment.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
LIN02	235	**Product/Service ID Qualifier**	M	ID	2/2	Must use
		Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)				
		CodeList Summary (Total Codes: 513, Included: 5)				
		Code **Name**				
		EN GTIN EAN/UCC - 13 Digit Data Structure				
		Description: *Data structure for the 13 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*				
		Data structure for the 13 digit GS1 Global Trade Item Number (GTIN) SEE CODE SOURCE 41				
		EO GTIN EAN/UCC - 8 Digit Data Structure				
		Description: *Data structure for the 8 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*				
		Data structure for the 8 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN) SEE CODE SOURCE 41				
		P8 Retail Price Look Up Number (PLU)				
		UK GTIN 14-digit Data Structure				
		Description: *Data structure for the 14 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*				
		UP GTIN UCC - 12 Digit Data Structure				
		Description: *Data structure for the 12 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN). Also known as the Universal Product Code (U.P.C.)*				
		Data structure for the 12 digit GS1 Global Trade Item Number (GTIN). Also known as the Universal Product Code (U.P.C.) SEE CODE SOURCE 41				
LIN03	234	**Product/Service ID**	M	AN	1/48	Must use
		Description: Identifying number for a product or service				
LIN04	235	**Product/Service ID Qualifier**	X	ID	2/2	Used
		Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)				
		CodeList Summary (Total Codes: 513, Included: 5)				
		Code **Name**				
		EN GTIN EAN/UCC - 13 Digit Data Structure				

Code	Name
	Description: *Data structure for the 13 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*
	Data structure for the 13 digit GS1 Global Trade Item Number (GTIN) SEE CODE SOURCE 41
EO	GTIN EAN/UCC - 8 Digit Data Structure
	Description: *Data structure for the 8 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*
	Data structure for the 8 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN) SEE CODE SOURCE 41
P8	Retail Price Look Up Number (PLU)
UK	GTIN 14-digit Data Structure
	Description: *Data structure for the 14 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*
UP	GTIN UCC - 12 Digit Data Structure
	Description: *Data structure for the 12 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN). Also known as the Universal Product Code (U.P.C.)*
	Data structure for the 12 digit GS1 Global Trade Item Number (GTIN). Also known as the Universal Product Code (U.P.C.) SEE CODE SOURCE 41

LIN05	234	**Product/Service ID**	X	AN	1/48	Used

Description: Identifying number for a product or service

LIN06	235	**Product/Service ID Qualifier**	X	ID	2/2	Used

Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)

CodeList Summary (Total Codes: 513, Included: 5)

Code	Name
EN	GTIN EAN/UCC - 13 Digit Data Structure
	Description: *Data structure for the 13 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*
	Data structure for the 13 digit GS1 Global Trade Item Number (GTIN) SEE CODE SOURCE 41
EO	GTIN EAN/UCC - 8 Digit Data Structure
	Description: *Data structure for the 8 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*
	Data structure for the 8 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN) SEE CODE SOURCE 41
P8	Retail Price Look Up Number (PLU)
UK	GTIN 14-digit Data Structure
	Description: *Data structure for the 14 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN)*
UP	GTIN UCC - 12 Digit Data Structure
	Description: *Data structure for the 12 digit EAN.UCC (EAN International.Uniform Code Council) Global Trade Item Number (GTIN). Also known as the Universal Product Code (U.P.C.)*
	Data structure for the 12 digit GS1 Global Trade Item Number (GTIN). Also known as the Universal Product Code (U.P.C.) SEE CODE SOURCE 41

LIN07	234	**Product/Service ID**	X	AN	1/48	Used

Ref	Id	Element Name	Req	Type	Min/Max	Usage

Description: Identifying number for a product or service

Syntax Rules:

1. P0405 - If either LIN04 or LIN05 is present, then the other is required.
2. P0607 - If either LIN06 or LIN07 is present, then the other is required.
3. P0809 - If either LIN08 or LIN09 is present, then the other is required.
4. P1011 - If either LIN10 or LIN11 is present, then the other is required.
5. P1213 - If either LIN12 or LIN13 is present, then the other is required.
6. P1415 - If either LIN14 or LIN15 is present, then the other is required.
7. P1617 - If either LIN16 or LIN17 is present, then the other is required.
8. P1819 - If either LIN18 or LIN19 is present, then the other is required.
9. P2021 - If either LIN20 or LIN21 is present, then the other is required.
10. P2223 - If either LIN22 or LIN23 is present, then the other is required.
11. P2425 - If either LIN24 or LIN25 is present, then the other is required.
12. P2627 - If either LIN26 or LIN27 is present, then the other is required.
13. P2829 - If either LIN28 or LIN29 is present, then the other is required.
14. P3031 - If either LIN30 or LIN31 is present, then the other is required.

Semantics:

1. LIN01 is the line item identification

SN1 Item Detail (Shipment)

Pos: 0300	Max: 1
Detail - Optional	
Loop: HL	Elements: 2

User Option (Usage): Used

Purpose: To specify line-item detail relative to shipment

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SN102	382	**Number of Units Shipped**	M	R4	1/10	Must use
		Description: Numeric value of units shipped in manufacturer's shipping units for a line item or transaction set				
SN103	355	**Unit or Basis for Measurement Code**	M	ID	2/2	Must use
		Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				
		CodeList Summary (Total Codes: 888, Included: 1)				
		Code **Name**				
		EA Each				

Syntax Rules:

1. P0506 - If either SN105 or SN106 is present, then the other is required.

Semantics:

1. SN101 is the ship notice line-item identification.
2. SN105 is quantity ordered.

PO4 Item Physical Details

Pos: 0600	Max: 1
Detail - Optional	
Loop: HL	Elements: 7

User Option (Usage): Used

Purpose: To specify the physical qualities, packaging, weights, and dimensions relating to the item

PO405, PO406, and PO407 are primarily used for perishable products.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PO401	356	**Pack**	O	N0	1/6	Used
		Description: The number of inner containers, or number of eaches if there are no inner containers, per outer container				
PO402	357	**Size**	X	R3	1/8	Used
		Description: Size of supplier units in pack				
PO403	355	**Unit or Basis for Measurement Code**	X	ID	2/2	Used
		Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				

CodeList Summary (Total Codes: 888, Included: 27)

Code	Name
1N	Count
AF	Centigram
	Description: *A unit of metric weight equal to 0.01 gram or 0.000035 ounce*
C3	Centiliter
CM	Centimeter
DG	Decigram
DL	Deciliter
DM	Decimeter
DZ	Dozen
EA	Each
FT	Foot
GA	Gallon
GN	Gross Gallons
GR	Gram
H2	Half Liter
	Description: *Unit of capacity equal to 1/2 liter*
HR	Hours
IN	Inch
KG	Kilogram
LB	Pound
LT	Liter
MG	Metric Gross Ton
MJ	Minutes
ML	Milliliter
MR	Meter

Code	Name
NG	Net Gallons
OZ	Ounce - Av
PT	Pint
QT	Quart

PO405	187	**Weight Qualifier**	O	ID	1/2	Used

Description: Code defining the type of weight

CodeList Summary (Total Codes: 52, Included: 3)

Code	Name
G	Gross Weight
N	Actual Net Weight
A3	Shippers Weight

PO406	384	**Gross Weight per Pack**	X	R2	1/9	Used

Description: Numeric value of gross weight per pack

PO407	355	**Unit or Basis for Measurement Code**	X	ID	2/2	Used

Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken

CodeList Summary (Total Codes: 888, Included: 3)

Code	Name
KG	Kilogram
LB	Pound
OZ	Ounce - Av

PO414	810	**Inner Pack**	O	N0	1/6	Used

Description: The number of eaches per inner container

Syntax Rules:

1. C0506 - If PO405 is present, then PO406 is required.
2. C1013 - If PO410 is present, then PO413 is required.
3. C1113 - If PO411 is present, then PO413 is required.
4. C1213 - If PO412 is present, then PO413 is required.
5. C1716 - If PO417 is present, then PO416 is required.
6. C1804 - If PO418 is present, then PO404 is required.
7. L13101112 - If PO413 is present, then at least one of PO410, PO411 or PO412 is required.
8. P0203 - If either PO402 or PO403 is present, then the other is required.
9. P0607 - If either PO406 or PO407 is present, then the other is required.
10. P0809 - If either PO408 or PO409 is present, then the other is required.

Semantics:

1. PO415 is used to indicate the relative layer of this package or range of packages within the layers of packaging. Relative Position 1 (value R1) is the innermost package.
2. PO416 is the package identifier or the beginning package identifier in a range of identifiers.
3. PO417 is the ending package identifier in a range of identifiers.
4. PO418 is the number of packages in this layer.

PID Product/Item Description

Pos: 0700	Max: 200
Detail - Optional	
Loop: HL	Elements: 5

User Option (Usage): Used

Purpose: To describe a product or process in coded or free-form format

The PID segment is used to provide product/item descriptions in text format.

To identify the Trade Item Unit Indicator of a product:
PID01 = 'S'
PID02 = "12"
PID03 = "FD"
PID04 - Select from codes BU, CU, DU, IU, OU, and VU. Refer to PID04 for specific information.

To identify the Trade Item Unit Descriptor of a product:
PID01 = 'S'
PID02 = "ZZ"
PID03 = "FD"
PID04 - Select from codes CA, DS, EA, MP, MX, PC, PK, PL, PY, SP. Refer to PID04 for specific information.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PID01	349	**Item Description Type**	M	ID	1/1	Must use
		Description: Code indicating the format of a description				
		CodeList Summary (Total Codes: 3, Included: 2)				
		Code **Name** F Free-form S Structured (From Industry Code List)				
PID02	750	**Product/Process Characteristic Code**	O	ID	2/3	Used
		Description: Code identifying the general class of a product or process characteristic				
		CodeList Summary (Total Codes: 270, Included: 2)				
		Code **Name** 12 Type and/or Process ZZ Mutually Defined				
PID03	559	**Agency Qualifier Code**	X	ID	2/2	Used
		Description: Code identifying the agency assigning the code values				
		CodeList Summary (Total Codes: 195, Included: 1)				
		Code **Name** FD GS1 US, Inc.				
PID04	751	**Product Description Code**	X	AN	1/12	Used
		Description: A code from an industry code list which provides specific data about a product characteristic				
		CodeList Summary (Total Codes: 30, Included: 16)				
		Code **Name** BU Base Unit *The lowest level packaged unit for a given product, which may or may not be the*				

Code	Name
	consumer unit.
CA	Case
CU	Consumer Unit
	Identifies whether the current hierarchy level of a trade item is intended for ultimate consumption.
DS	Display
	Description: *Display shipper.*
DU	Despatch Unit
	An indicator identifying that the information provider considers the trade item as a despatch (shipping) unit.
EA	Each
	Description: *Base unit.*
IU	Invoice Unit
	An indicator identifying that the information provider will include this trade item on their billing or invoice.
MP	U.P.C. Multipack
	As defined by "U.P.C. Data Communications Guidelines for General Merchandise and Apparel".
MX	Mixed Module
OU	Orderable Unit
	An indicator identifying that the information provider considers this trade item to be at a hierarchy level where they will accept orders from customers.
PC	Prepack subject to change
PK	Pack or Inner Pack
PL	Pallet
PY	Prepack
SP	Assort Pack Setpack
	As defined by "U.P.C. Data Communications Guidelines for General Merchandise and Apparel".
	Previously 'U.P.C. Setpack'.
VU	Variable Unit
	Indicates that an article is not a fixed quantity, but that the quantity is variable.

PID05	352	**Description**	X	AN	1/80	Used

Description: A free-form description to clarify the related data elements and their content

Syntax Rules:

1. C0403 - If PID04 is present, then PID03 is required.
2. C0703 - If PID07 is present, then PID03 is required.
3. C0804 - If PID08 is present, then PID04 is required.
4. C0905 - If PID09 is present, then PID05 is required.
5. R0405 - At least one of PID04 or PID05 is required.

Semantics:

1. Use PID03 to indicate the organization that publishes the code list being referred to.
2. PID04 should be used for industry-specific product description codes.
3. PID08 describes the physical characteristics of the product identified in PID04. A "Y" indicates that the specified attribute applies to this item; an "N" indicates it does not apply. Any other value is indeterminate.

4. PID09 is used to identify the language being used in PID05.

PKG Marking, Packaging, Loading

Pos: 1000	Max: 25
Detail - Optional	
Loop: HL	Elements: 4

User Option (Usage): Used

Purpose: To describe marking, packaging, loading, and unloading requirements

To identify the Data Carrier Type code - package markings on or attached to a product (barcode and/or EPC/RFID):
PKG01 = "S"
PKG02 = "34" - includes EPC/RFID, bar codes and Data Matrix.
PKG03 = "'FD"
PKG04 = Data Carrier Type Code - identifies the type of marking on or attached to the product, or a marking that is possible to place on the product.
Select from the list in PKG04.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PKG01	349	**Item Description Type**	X	ID	1/1	Used
		Description: Code indicating the format of a description				
		CodeList Summary (Total Codes: 3, Included: 1)				
		Code **Name**				
		S Structured (From Industry Code List)				
PKG02	753	**Packaging Characteristic Code**	O	ID	1/5	Used
		Description: Code specifying the marking, packaging, loading and related characteristics being described				
		CodeList Summary (Total Codes: 47, Included: 1)				
		Code **Name**				
		34 Product Marking				
		Includes EPC/RFID, bar codes and Data Matrix.				
PKG03	559	**Agency Qualifier Code**	X	ID	2/2	Used
		Description: Code identifying the agency assigning the code values				
		CodeList Summary (Total Codes: 195, Included: 1)				
		Code **Name**				
		FD GS1 US, Inc.				
PKG04	754	**Packaging Description Code**	X	AN	1/7	Used
		Description: A code from an industry code list which provides specific data about the marking, packaging or loading and unloading of a product				
		The following is used when PKG02 = 34:				
		To identify the Data Carrier Type code - package markings on or attached to a product, select a code from the following list:				
		Code - Value *27 - GS1 DataBar* *28 - GS1 DataBar Stacked*				

Ref	Id	Element Name	Req	Type	Min/Max	Usage
		29 - GS1DataBar Stacked Omni-directional *30 - GS1DataBar Truncated* *31 - GS1DataBar Expanded* *32 - GS1DataBar Expanded Stacked* *33 - GS1 DataBar Limited* *25 - GTIN-14 Symbol (non-specified symbology)* *26 - ITF-14 Symbol* *36 - GTIN-128 Symbol* *34 - UPC-A Symbol* *23 - GTIN-8 Symbol* *24 - GTIN-13 Symbol* *35 - UPC-E Symbol - 8 digit format* *E1 - EPC* *20 - Composite Component A* *21 - Composite Component B* *22 - Composite Component C* *D1 - Data Matrix* *G1 - Code 39* *G2 - ITF* *G3 - Code 128* *H1 - Barcode Capable* *H2 - Barcode Always* *H3 - Barcode Never* *J1 - EPC Capable* *J2 - EPC Always* *J3 - EPC Never* *K1 - GS1 DataBar Capable* *K2 - GS1 DataBar Always* *K3 - GS1 DataBar Never* *Implementation Guidelines:* *1. GS1 DataBar cods 27-33 and "K"codes are mutually exclusive; either one of the GS1 DataBar codes or one of the "K" codes may be used when identifying a product's data carrier type.* *2. Code "E1" and the "J"codes are mutually exclusive; either "E1"or one of the "J" codes may be used when identifying a product's data carrier type.* *3. An "H" code may only be used with codes "E1", "D1", and the "J" codes.* *4. The Composite codes are only valid when used with another appropriate bar code type.* *5. "G" codes are not part of the GS1 standard.*				

Syntax Rules:

1. R040506 - At least one of PKG04, PKG05 or PKG06 is required.
2. C0403 - If PKG04 is present, then PKG03 is required.
3. C0501 - If PKG05 is present, then PKG01 is required.

Semantics:

1. PKG04 should be used for industry-specific packaging description codes.

Comments:

1. Use the MEA (Measurements) Segment to define dimensions, tolerances, weights, counts, physical restrictions, etc.

2. If PKG01 equals "F", then PKG05 is used. If PKG01 equals "S", then PKG04 is used. If PKG01 equals "X", then both PKG04 and PKG05 are used.
3. Use PKG03 to indicate the organization that publishes the code list being referred to.
4. Special marking or tagging data can be given in PKG05 (description).

REF Reference Information

Pos: 1500	Max: >1
Detail - Optional	
Loop: HL	Elements: 2

User Option (Usage): Used

Purpose: To specify identifying information

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	128	**Reference Identification Qualifier**	M	ID	2/3	Must use
		Description: Code qualifying the Reference Identification				
		CodeList Summary (Total Codes: 1777, Included: 1)				
		Code **Name**				
		SE Serial Number				
		Manufacturer-assigned Serial Number.				
REF02	127	**Reference Identification**	X	AN	1/80	Used
		Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier				

Syntax Rules:

1. R0203 - At least one of REF02 or REF03 is required.

DTM Date/Time Reference

Pos: 2000	Max: 10
Detail - Optional	
Loop: HL	Elements: 2

User Option (Usage): Used

Purpose: To specify pertinent dates and times

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM01	374	**Date/Time Qualifier**	M	ID	3/3	Must use
		Description: Code specifying type of date or time, or both date and time				
		CodeList Summary (Total Codes: 1289, Included: 2)				
		Code **Name** 510 Date Packed 511 Shelf Life Expiration				
DTM02	373	**Date**	X	DT	8/8	Used
		Description: Date expressed as CCYYMMDD where CC represents the first two digits of the calendar year				

Syntax Rules:

1. C0403 - If DTM04 is present, then DTM03 is required.
2. P0506 - If either DTM05 or DTM06 is present, then the other is required.
3. R020305 - At least one of DTM02, DTM03 or DTM05 is required.

CTT Transaction Totals

Pos: 0100	Max: 1
Summary - Optional	
Loop: N/A	Elements: 1

User Option (Usage): Used

Purpose: To transmit a hash total for a specific element in the transaction set

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
CTT01	354	**Number of Line Items**	M	N0	1/6	Must use
		Description: Total number of line items in the transaction set *CTT01 contains the number of HL segments present in the transaction set.*				

Syntax Rules:

1. P0304 - If either CTT03 or CTT04 is present, then the other is required.
2. P0506 - If either CTT05 or CTT06 is present, then the other is required.

Comments:

1. This segment is intended to provide hash totals to validate transaction completeness and correctness.

SE Transaction Set Trailer

Pos: 0200	Max: 1
Summary - Mandatory	
Loop: N/A	Elements: 2

User Option (Usage): Must use

Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SE01	96	**Number of Included Segments**	M	N0	1/10	Must use
		Description: Total number of segments included in a transaction set including ST and SE segments				
SE02	329	**Transaction Set Control Number**	M	AN	4/9	Must use
		Description: Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set				
		The transaction set control number (SE02) is the same as that used in the corresponding header (ST02).				

Comments:

1. SE is the last segment of each transaction set.