Leveraging the GDST Standard for FDA's Food Traceability Rule Compliance (FSMA 204) – FAQs

What is the FDA's Food Traceability Rule?

The FDA's Food Traceability Rule, often called FSMA 204, establishes traceability recordkeeping requirements for persons who manufacture, process, pack or hold foods included on the Food Traceability List to be distributed in the United States. This rule implements Section 204(d) of the FDA Food Safety Modernization Act (FSMA). Its impact extends globally, affecting seafood actors due to the inclusion of numerous seafood products on the list.

How and why is FSMA 204 different than the GDST?

While FSMA 204 and the GDST Standard share the overarching objective of advancing traceability in the supply chain, distinctions arise from their specific goals. The FDA prioritizes enhancing recall speed and accuracy, reflected in its unique data requirements. In contrast, the GDST Standard focuses on achieving full-chain, interoperable seafood traceability. These differing goals lead to some differences in data needs.

For example:

- The FDA requires a contact phone number for quick and accessible communication during recalls. This requirement is absent in the GDST Standard, as it isn't deemed critical for seafood traceability.
- The GDST Standard requires the capture of Fishing Authorization during the fishing Critical Tracking Event (CTE) as this information is critical for ensuring legal seafood that can be traced back to its origin. However, this data is not required by the FDA as it is not necessary to complete a recall.

Despite these differences, the GDST Standard can be used to support the requirements of FSMA 204.

How can the GDST Standard be used to comply with the requirements of FSMA 204?

Adopting and implementing the GDST Standard will help prepare seafood supply chain actors to meet the requirements of the FDA Food Traceability Rule.

The data requirements for both FSMA 204 and the GDST Standard align closely. Where variations exist, GDST leverages EPCIS attributes to seamlessly bridge the gap. GS1's EPCIS Standard provides the foundational framework for the GDST Standard and that framework can be used to support data collection and sharing needs well beyond those required by the GDST.

For example:

- While the GDST does not require contact phone numbers for any party in the supply chain, the EPCIS attribute "contactPoint.telephone" may be included and shared with the data that describes a location and/or entity in the supply chain to fulfill the contact phone KDE requirement of FSMA 204.

While FSMA 204 specifies **what data should be collected and when,** it allows industry to choose **how that data will be formatted and shared.** The GDST Standard addresses this by providing standardized protocols, offering a clear framework for all stakeholders, easing the burden of implementation throughout the supply chain.

Why is a standardized approach to FSMA 204 compliance beneficial for seafood industry actors?

Implementing traceability systems can be complex and challenging; it requires collaboration among all actors of a supply chain. A shared approach to traceability practices reduces redundant data collection, improves data reliability, and makes traceability more affordable and accessible to all stakeholders. Standardization is also the foundation of technical interoperability – the ability of different systems to exchange and make use of information. With a common approach to data collection, formatting, and exchange, technology solution providers can design systems that interact seamlessly. The result is a choice for seafood companies to adopt systems that align with their business needs without concerns related to compatibility with suppliers and customers also complying with FDA requirements.

What is the purpose of this guidance document?

This guidance document serves the crucial purpose of demonstrating how the GDST Standard can effectively meet the requirements outlined in FSMA 204.

What is contained in this guidance document?

The document maps the FSMA 204 Critical Tracking Events (CTEs) and Key Data Elements (KDEs) to their corresponding GDST counterparts. In instances where a direct match is unavailable (e.g. GDST does not require the specific data element), the FSMA 204 KDE is linked to an EPCIS attribute that aligns with the GDST Standard. While such KDEs may not be directly required by the GDST, they are easily collected, shared, and interpreted by those using the GDST Standard.

Who is this guidance document for?

The primary audience for this document comprises traceability solution providers and in-house IT teams. It serves as a guide for technology providers, demonstrating how to utilize the GDST Standard, supported by EPCIS, to express the required data for FDA Traceability Rule compliance, so that they can build that functionality into their solutions. Additionally, seafood traceability stakeholders may find this document valuable for its specific and detailed mapping between FSMA 204 and the GDST Standard.

How should this guidance document be used?

Technology providers that have implemented or are considering the implementation of the GDST Standard can leverage this guidance to translate GDST events and data elements into the events and data elements required by FSMA 204. The guidance document is also a valuable resource for anyone seeking a comprehensive understanding of the CTEs and KDEs required by FSMA 204 in a seafood-specific context.

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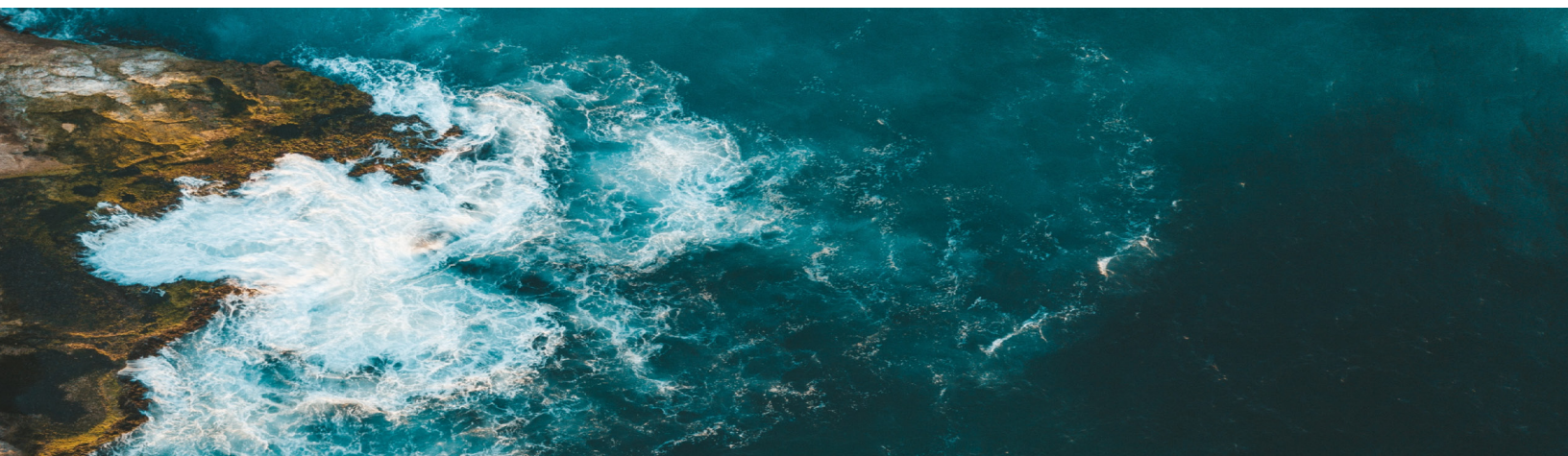
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These are supplemental guidelines to illustrate how the GDST Standard can be used to comply with the requirements of the FDA's Food Traceability Rule (FSMA 204).

Leveraging the GDST Standard for FDA's Food Traceability Rule (FSMA 204) Compliance –

Technical Guidance

Objective

The objective of this document is to demonstrate how the GDST standard can be applied to meet FDA's Food Traceability Rule requirements and translate GDST events from their native JSON-LD format into a format that aligns with the FDA's traceability data requirements. The Food Traceability Rule, implementing the Food Safety Modernization Act (FSMA) Section 204, is scheduled to take effect in January 2026. This guidance document will be periodically reviewed and revised to incorporate any emerging best practices.

Examples

We have received requests from multiple parties to include examples for scenarios that do not have a clear definition of how to handle the FSMA 204 regulation documents. The purpose of this document is not to provide guidance at this level, but rather to provide a direct mapping from the GDST standard into the FSMA 204 CTE/KDE requirements.

Critical Tracking Events

Both the GDST and the FDA utilize event-based traceability to structure the traceability data, and both have defined a set of Critical Tracking Events (CTEs).

Below is table that maps the FSMA 204 events to their corresponding GDST events and indicates if this is for either aquaculture, wild-caught, or both.

FDA CTE	GDST	Aquaculture	Wild-Caught
Harvesting (aquaculture only)	Farm Harvest	⊗	
Initial Packing	Receiving + Processing + Farm Harvest	⊗	
First Land-Based Receiving (wild catch only)	Fishing + Landing		⊗
Shipping	Shipping	⊗	⊗
Receiving	Receiving	⊗	⊗
Transformation	Processing	⊗	⊗

Data Formats

This guide follows the GDST 1.2 data formats which are based on the EPCIS 2.0 JSON-LD for event data and the GS1 Web-Vocab JSON-LD for master data. Please refer to these two resources for foundational knowledge about these data formats and the standards behind them.

Traceability Lot Code and Traceability Lot Code Source

The Traceability Lot Code is the EPC of the product, either the lot-level EPC with a GTIN + Lot Number or the case-level with a GTIN + Serial Number. The Traceability Lot Code Source (TLC Source) is the GLN of the physical location where the product was produced, or the TLC was assigned.

Business Location ID vs Read Point ID in EPCIS

The Business Location ID (bizLocation) and Read Point ID (readPoint) are two ways in an EPCIS event to describe the "where" aspect of an event. The Read Point ID is meant to serve as the most specific point at which the event took place, while the Business Location ID is meant to serve as the location in which the product is assumed to be until a new event indicates otherwise.[1] In order to align with GS1 and be more specific when reporting location information for FSMA 204 requirements, we have mapped the location ID to the read point in an EPCIS event, however, **it is possible to use the business location ID as well if a read point ID cannot be provided.**

Lot-Level vs. Case-Level Traceability

Some organizations may choose to do case-level traceability where each case is tracked with a GTIN + Serial Number (EPC) instead of with the GTIN + Lot Number. It is recommended that for the purposes of FSMA 204, that lot-level traceability is chosen. In line with the objectives of the FSMA 204, lot-level traceability facilitates more efficient recall management. Additionally, traditional lot-level traceability practices are better suited to support the TLC requirements as the TLC must be maintained throughout shipping and receiving events as product moves through the supply chain supply chain, only changing during a qualified transformation event. As shipping/receiving events often involve 1000+ EPCs, the practice of assigning and later recording a distinct TLC to each case-level EPC will likely be burdensome for both shipping and receiving parties.

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1. EPCIS 2.0 Guidance Document – Section 7.3.4 - https://www.gs1.org/sites/default/files/docs/epc/EPCIS-Standard-1.2-r-2016-09-29.pdf

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FSMA 204 Harvesting Event (aquaculture only)

This section will cover how each KDE on a FSMA 204 Event is mapped into its corresponding GDST KDEs.

FSMA 204 KDE	GDST KDE
Location Description for Immediate Subsequent Recipient (e.g. initial packer or processor) Key contact information for the location where a food is handled, specifically the business name, phone number, physical location address (or geographic coordinates) and city, state, zip code for domestic locations and comparable information for foreign locations. Location identifiers (e.g. store number, GLN, FDA Establishment Number) can be added to or used in place of the location description elements, provided a glossary or key is maintained to indicate the physical address and other required elements for the specific location.	**BUL** Location ID (A07), Location Name (A06), Location Address(A09) **EPCIS – Option #1 – Shipping Event leaving the aquaculture facility.** • Shipping Event > destinationList[].destination • Shipping Event > destinationList[].destination > Master Data > name • Shipping Event > destinationList[].destination > Master Data > address • Shipping Event > destinationList[].destination > Master Data > contactPoint.telephone **EPCIS – Option #2 – Receiving Event for products arriving at processor.** • Receiving Event > readPoint • Receiving Event > readPoint > Master Data > name • Receiving Event > readPoint > Master Data > address • Receiving Event > readPoint > Master Data > contactPoint.telephone **Notes** It is recommended that the Location ID is provided in the spreadsheet for the event, and that the location name and address are provided in a glossary in the spreadsheet. The subsequent recipient can be determined by looking at the destination location on the shipping event of the products leaving the aquaculture facility, or it can be found by looking at the subsequent receiving event directly. GDST does not have a specific KDE for contact phone, however, the GS1 Smart Vocabulary JSON-LD for master data supports this KDE.

Harvest Location Description

Key contact information for the location where a food is handled, specifically the business name, phone number, physical location address (or geographic coordinates) and city, state, zip code for domestic locations and comparable information for foreign locations. Location identifiers (e.g. store number, GLN, FDA Establishment Number) can be added to or used in place of the location description elements, provided a glossary or key is maintained to indicate the physical location.

BUL

Location ID (A07), Location Name (A06), Location Address(A09)

EPCIS – Farm Harvest Event

- Farm Harvest Event > bizLocation.id
- Farm Harvest Event > bizLocation.id (GLN) > Master Data > name
- Farm Harvest Event > bizLocation.id > Master Data > address
- Farm Harvest Event > bizLocation.id > Master Data > contact

Notes

It is recommended that the Location ID is provided in the spreadsheet for the event, and that the location name and address are provided in a glossary in the spreadsheet. GDST does not have a specific KDE for contact phone, however, the GS1 Smart Vocabulary JSON-LD for master data supports this KDE.

** This is the one case where the bizLocation and the read point KDEs are required because the harvest information requires the farm and the pond. In this case, the farm GLN should be recorded into the bizLocation and the pond GLN should be recorded into the readPoint KDE.

Quantity Harvested

Quantity of food associated with event

BUL

Weight/Quantity (A03)

EPCIS – Farm Harvest Event – Lot-Level Traceability

- Farm Harvest Event > outputQuantityList[].quantity

EPCIS – Farm Harvest Event – Case-Level Traceability

- Farm Harvest Event > outputEPCList[] > GTIN > Master Data > netWeight.value

Notes

When using case-level traceability, the cases can be grouped by their GTIN and counted. The total weight can be calculated by looking at the master data of the GTIN and grabbing the "net weight" KDE and multiplying this by the total number of cases in the GTIN group.

Unit of Measure	BUL
Unit of measure associated with quantity	Weight/Quantity (A03)
	EPCIS – Farm Harvest Event – Lot-Level Traceability
	• Farm Harvest Event > outputQuantityList[].uom
	EPCIS – Farm Harvest Event – Case-Level Traceability
	• Farm Harvest Event > outputEPCList > GTIN > Master Data > netWeight.unitCode
	Notes
	When using case-level traceability, the unit of measurement can be obtained by looking at the unit used in the GTINs master data in the "net weight" KDE.
Reference Document Type	**BUL**
A business transaction document, record, or message, in electronic or paper form, that may contain some or all of the key data elements for a critical tracking event in the supply chain of a food.	There are no specific GDST KDEs in the BUL for referenced document type.
	EPCIS – Farm Harvest Event
A reference document may be established by you or obtained from another person. Reference document types may include, but are not limited to, bills of lading, purchase orders, advance shipping notices, work orders, invoices, database records, batch logs, production logs, field tags, catch certificates, and receipts.	• Farm Harvest Event > bizTransactionList[].type
	Notes
	GDST has no specific KDE to match the "Reference Document Type" but the "type" attribute of a bizTransaction element in an EPCIS event may be used to fulfill the requirement.

Reference Document Number

ID number assigned to a specific reference document. (e.g. PO number, BOL number, WO number, etc.)

BUL

There are no specific GDST KDEs in the BUL for referenced document type.

EPCIS – Farm Harvest Event

- Farm Harvest Event > bizTransactionList[].bizTransaction

Notes

GDST has no specific KDE to match the "Reference Document Number" but the value of a bizTransaction element in an EPCIS event may be used to fulfill the requirement. If they are using a GS1 identifier for the document referenced, they will need to resolve that GS1 identifier to a document number familiar to your organization.

Harvester Business Name

Business name of firm that harvested the food. Harvester can be the farm from which the food originates or a third-party entity that performs the harvest event.

BUL

There is no good qualifying KDE for the Harvester Business Name. The problem is that while Organization (A05) is good candidate, it does cover the situation in which a third-party entity performed the harvesting.

EPCIS – Farm Harvest Event

- Farm Harvest Event > sourceList[].source > Master Data > organizationName

  Where the sourceList[].type is equal to "owning_party".

Notes

GS1 recommends using the "source owning party" on the event to indicate who the harvester was.

Harvester Phone Number

Contact phone number of firm that harvested the food. Harvester can be the farm from which the food originates or a third-party entity that performs the harvest event.

BUL

There is no good qualifying KDE for the Harvester Business Phone Number. The problem is that while Organization (A05) is good candidate, it does cover the situation in which a third-party entity performed the harvesting.

EPCIS – Farm Harvest Event

- Farm Harvest Event > sourceList[].source > Master Data > contactPoint.telephone

    Where the sourceList[].type is equal to "owning_party".

Notes

GS1 recommends using the "source owning party" on the event to indicate who the harvester was.

RAC Commodity & Variety

Common name for food item and type/variety descriptor (e.g. commodity = melon, variety = honeydew)

BUL

GTIN (A01) + Species (A04)

EPCIS – Farm Harvest Event – Lot-Level Traceability

- Farm Harvest Event > outputQuantityList > GTIN > Master Data > shortDescription
- Farm Harvest Event > outputQuantityList > GTIN > Master Data > speciesForFisheryStatisticsPurposesName
- Farm Harvest Event > outputQuantityList > GTIN > Master Data > speciesForFisheryStatisticsPurposesCode

EPCIS – Farm Harvest Event – Case-Level Traceability

- Farm Harvest Event > outputEPCList > GTIN > Master Data > shortDescription
- Farm Harvest Event > outputEPCList > GTIN > Master Data > speciesForFisheryStatisticsPurposesName
- Farm Harvest Event > outputEPCList > GTIN > Master Data > speciesForFisheryStatisticsPurposesCode

Notes

GDST does not specifically require "commodity" and "variety" elements. However, these elements may be included in/pulled from the product name or the master data associated with the GTIN.

Container Name or Equivalent Identifier (Aquaculture Only) *Container = pond, pool, tank, cage, etc.

Name of the container (e.g. pond, pool, tank, cage, etc.) from which food is harvested - must correspond to the name used by the aquaculture farmer. If a "name" is not used by the farmer, other equivalent identifying information may be used.

BUL

Location ID (A06)

EPCIS – Farm Harvest Event #1

- Farm Harvest Event > readPoint > Master Data > physicalLocationName

Notes

GDST does not specifically require container-level identification, however, the GLN for the location on the farm harvest event supports "sub-locations" to be specified. Those GLNs can be resolved to Master Data for the pond / container.

Such that for a GS1 GLN for a facility might be urn:epc:id:sgln:0614141.00888.0, and the pond is urn:epc:id:sgln:0614141.00888.10.

For a GDST (Non-GS1) GLN, the URN standard provides secondary locators such as urn:gdst:example.org:location:loc:ORG1.FARM can be the GLN for the farm, and urn:gdst:example.org:location:loc:ORG1.FARM.POND10 can be the GLN for the pond.

The farm's GLN should be recorded in the bizLocation KDE.
This also what GS1 recommends in their FSMA 204 guidance document.

Harvest Date

Date on which harvest event took place.

BUL

Date of Harvest (A16)

EPCIS – Farm Harvest Event

- Farm Harvest Event > eventTime

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on Seafood Traceability

FSMA 204 Initial Packing Event

The Initial Packing Event is a combination of the Farm Harvest, Receive and Processing events for products arriving at the primary processor for packing.

FSMA 204 KDE	GDST KDE
RAC Commodity & Variety of Food Received Common name for food item and type/variety descriptor (e.g. commodity = melon, variety = honeydew)	**BUL** GTIN (A01) + Species (A04) **EPCIS – Farm Harvest Event – Lot-Level Traceability** • Receive Event > quantityList[].epcClass > GTIN > Master Data > shortDescription • Receive Event > quantityList[].epcClass > GTIN > Master Data > speciesForFisheryStatisticsPurposesName • Receive Event > quantityList[].epcClass > GTIN > Master Data > speciesForFisheryStatisticsPurposesCode **EPCIS – Farm Harvest Event – Case-Level Traceability** • Receive Event > epcList[] > GTIN > Master Data > shortDescription • Receive Event > epcList[] > GTIN > Master Data > speciesForFisheryStatisticsPurposesName • Receive Event > epcList[] > GTIN > Master Data > speciesForFisheryStatisticsPurposesCode **Notes** GDST does not specifically require "commodity" and "variety" elements. However, these elements may be included in/pulled from the product name or the master data associated with the GTIN.
Receive Date Date on which food was received by the initial packing entity.	**BUL** There is no specific KDE listed in the BUL regarding the receive date for a receiving event, however the CTE/KDE matrix in the Core Normative Standard lists the Event Time as a required KDE for each event. **EPCIS – Farm Harvest Event – Case-Level Traceability** • Receive Event > eventTime

Quantity Received

Quantity of food associated with event

BUL

Weight/Quantity (A03)

EPCIS – Receiving Event – Lot-Level Traceability

- Receive Event > quantityList[].quantity

EPCIS – Receiving Event – Case-Level Traceability

- Receive Event > epcList[] > GTIN > Master Data > netWeight.value

Notes

When using case-level traceability, the unit of measurement can be obtained by looking at the unit used in the GTINs master data in the "net weight" KDE.

Unit of Measure (Received)

Unit of measure associated with quantity

BUL

Weight/Quantity (A03)

EPCIS – Farm Harvest Event with lot-level traceability.

- Receive Event > quantityList[].uom

EPCIS – Farm Harvest Event with case-level traceability.

- Receive Event > epcList[] > GTIN > Master Data > netWeight.unitCode

Notes

When using case-level traceability, the unit of measurement can be obtained by looking at the unit used in the GTINs master data in the "net weight" KDE.

Location Description for Harvest Event

Key contact information for the location where a food is handled, specifically the business name, phone number, physical location address (or geographic coordinates) and city, state, zip code for domestic locations and comparable information for foreign locations. Location identifiers (e.g. store number, GLN, FDA Establishment Number) can be added to or used in place of the location description elements, provided a glossary or key is maintained to indicate the physical address and other required elements for the specific location.

BUL

Location ID (A07), Location Name (A06), Location Address(A09), Contact Phone (NEW)

EPCIS – Receiving Event for products arriving at processor.

- Farm Harvest Event > readPoint
- Farm Harvest Event > readPoint > Master Data > physicalLocationName
- Farm Harvest Event > readPoint > Master Data > address
- Farm Harvest Event > readPoint > Master Data > contactPoint.telephone

Notes

It is recommended that the Location ID is provided in the spreadsheet for the event, and that the location name and address are provided in a glossary in the spreadsheet. GDST does not have a specific KDE for contact phone, however, the GS1 Smart Vocabulary JSON-LD for master data supports this KDE.

Harvester Business Name

Business name of firm that harvested the food. Harvester can be the farm from which the food originates or a third-party entity that performs the harvest event.

BUL

There is no good qualifying KDE for the Harvester Business Name. The problem is that while Organization (A05) is good candidate, it does cover the situation in which a third-party entity performed the harvesting.

EPCIS – Farm Harvest Event

- Farm Harvest Event > sourceList[].source > Master Data > organizationName

  Where the sourceList[].type is equal to "owning_party".

Notes

GS1 recommends using the "source owning party" on the event to indicate who the harvester was.

Harvester Phone Number Contact phone number of firm that harvested the food. Harvester can be the farm from which the food originates or a third-party entity that performs the harvest event.	**BUL** There is no good qualifying KDE for the Harvester Business Phone Number. The problem is that while Organization (A05) is good candidate, it does cover the situation in which a third-party entity performed the harvesting. **EPCIS – Farm Harvest Event** • Farm Harvest Event > sourceList[].source > Master Data > contactPoint.telephone *Where the sourceList[].type is equal to "owning_party".* **Notes** GS1 recommends using the "source owning party" on the event to indicate who the harvester was.
Container Name or Equivalent Identifier (Aquaculture Only) *Container = pond, pool, tank, cage, etc. Name of the container (e.g. pond, pool, tank, cage, etc.) from which food is harvested - must correspond to the name used by the aquaculture farmer. If a "name" is not used by the farmer, other equivalent identifying information may be used.	**BUL** Location ID (A06) **EPCIS – Farm Harvest Event #1** • Farm Harvest Event > readPoint > Master Data > physicalLocationName **Notes** GDST does not specifically require container-level identification, however, the GLN for the location on the farm harvest event supports "sub-locations" to be specified. Those GLNs can be resolved to Master Data for the pond / container. Such that for a GS1 GLN for a facility might be urn:epc:id:sgln:0614141.00888.0, and the pond is urn:epc:id:sgln:0614141.00888.10. For a GDST (Non-GS1) GLN, the URN standard provides secondary locators such as urn:gdst:example.org:location:loc:ORG1.FARM can be the GLN for the farm, and urn:gdst:example.org:location:loc:ORG1.POND10 can be the GLN for the pond. The purpose is such that if you provide the GLN for the pond, the GLN for the farm can be deciphered as well. Therefore, it is possible to provide the GLN to the pond and at the same time also providing the GLN to the farm. This also what GS1 recommends in their FSMA 204 guidance document.

Harvest Date	**BUL**
Date on which harvest event took place	Date of Harvest (A16)
	EPCIS – Farm Harvest Event
	• Farm Harvest Event > eventTime

Location Description for Initial Packing Event (TLC Source)	**BUL**
Key contact information for the location where a food is handled, specifically the business name, phone number, physical location address (or geographic coordinates) and city, state, zip code for domestic locations and comparable information for foreign locations.	Location ID (A07), Location Name (A06), Location Address(A09)
	EPCIS – Receiving Event for products arriving at processor.
	• Processing Event > readPoint
	• Processing Event > readPoint > Master Data > physicalLocationName
Location identifiers (e.g. store number, GLN, FDA Establishment Number) can be added to or used in place of the location description elements, provided a glossary or key is maintained to indicate the physical address and other required elements for the specific location.	• Processing Event > readPoint > Master Data > address
	• Processing Event > readPoint > Master Data > contactPoint.telephone
	Notes
	It is recommended that the Location ID is provided in the spreadsheet for the event, and that the location name and address are provided in a glossary in the spreadsheet. GDST does not have a specific KDE for contact phone, however, the GS1 Smart Vocabulary JSON-LD for master data supports this KDE.

TLC Source Reference (if applicable)	**BUL**
An alternative method for providing FDA with access to the location description for the traceability lot code source as required under this subpart. Examples of a traceability lot code source reference include, but are not limited to, the FDA Food Facility Registration Number for the traceability lot code source or a web address that provides FDA with the location description for the traceability lot code source.	Location ID (A07)
	EPCIS – Receiving Event for products arriving at processor.
	• Processing Event > readPoint
	• Processing Event > readPoint > Master Data > physicalLocationName
	• Processing Event > readPoint > Master Data > address
	• Processing Event > readPoint > Master Data > contactPoint.telephone
	Notes
	It is recommended that the Location ID is provided in the spreadsheet for the event, and that the location name and address are provided in a glossary in the spreadsheet. GDST does not have a specific KDE for contact phone, however, the GS1 Smart Vocabulary JSON-LD for master data supports this KDE.

Quantity Packed Quantity of food associated with event.	**BUL** Weight/Quantity (A03) **EPCIS – Processing Event – Lot-Level Traceability** • Processing Event > outputQuantityList[].quantity **EPCIS – Receiving Event – Case-Level Traceability** • Farm Harvest Event > outputEPCList[] > GTIN > Master Data > netWeight.value **Notes** When using case-level traceability, the weight can be obtained by looking at the unit used in the GTINs master data in the "net weight" KDE.
Unit of Measure (packed) Unit of measure associated with quantity	**BUL** Weight/Quantity (A03) **EPCIS – Farm Harvest Event with lot-level traceability.** • Farm Harvest Event > outputQuantityList[].uom **EPCIS – Farm Harvest Event with case-level traceability.** • Farm Harvest Event > outputEPCList[] > GTIN > Master Data > netWeight.unitCode **Notes** When using case-level traceability, the unit of measurement can be obtained by looking at the unit used in the GTINs master data in the "net weight" KDE.

Reference Document Type	**BUL**
A business transaction document, record, or message, in electronic or paper form, that may contain some or all of the key data elements for a critical tracking event in the supply chain of a food. A reference document may be established by you or obtained from another person. Reference document types may include, but are not limited to, bills of lading, purchase orders, advance shipping notices, work orders, invoices, database records, batch logs, production logs, field tags, catch certificates, and receipts.	There are no specific GDST KDEs in the BUL for referenced document type. **EPCIS – Receive Event** • Receive Event > bizTransactionList[].type **EPCIS – Processing Event** • Processing Event > bizTransactionList[].type **Notes** GDST has no specific KDE to match the "Reference Document Type" but the "type" attribute of a bizTransaction element in an EPCIS event may be used to fulfill the requirement.
Reference Document Number	**BUL**
ID number assigned to a specific reference document. (e.g. PO number, BOL number, WO number, etc.)	There are no specific GDST KDEs in the BUL for referenced document type. **EPCIS – Farm Harvest Event** • Receive Event > bizTransactionList[].bizTransaction **EPCIS – Processing Event** • Processing Event > bizTransactionList[].bizTransaction **Notes** GDST has no specific KDE to match the "Reference Document Number" but the value of a bizTransaction element in an EPCIS event may be used to fulfill the requirement.
Initial Pack Date	**BUL**
Date on which packing event took place.	Production Date (A19/W23) **EPCIS – Processing Event** • Processing > eventTime

Traceability Lot Code for Packed Product

Any descriptor used to uniquely identify a traceability lot within the records of the firm that assigned the traceability lot. TLC must be included in the records required at each CTE. All KDEs must be linked to the TLC once assigned.

BUL

Linking KDE (A02/W02)

EPCIS – Processing Event – Lot-Level Traceability

- Processing Event > outputQuantityList[].epcClass

EPCIS – Processing Event – Case-Level Traceability

- Processing Event > outputEPCList[]

Notes

The Traceability lot code assigment practices must align with those specified by the FDA. GDST reccomends that the Traceability Lot Code is the lot-level EPC of the product (GTIN + Lot Number).

Product Description for Packed Product

A description of a food product that includes the product name (including, if applicable, the brand name, commodity, and variety), packaging size, and packaging style. For seafood, the product name may include the species and/or acceptable market name.

A single unique identifier (e.g. GTIN) can be used in place of product description KDES provided that a glossary or key is maintained to indicate the complete product description requirements.

BUL

GTIN (W01) + Species (W15)

EPCIS – Processing Event – Lot-Level Traceability

- Processing Event > outputQuantityList[].epcClass > GTIN > Master Data > shortDescription
- Processing Event > outputQuantityList[].epcClass > GTIN > Master Data > speciesForFisheryStatisticsPurposesName
- Processing Event > outputQuantityList[].epcClass > GTIN > Master Data > speciesForFisheryStatisticsPurposesCode

EPCIS – Processing Event – Case-Level Traceability

- Processing Event > outputEPCList[] > GTIN > Master Data > shortDescription
- Processing Event > outputEPCList[] > GTIN > Master Data > speciesForFisheryStatisticsPurposesName
- Processing Event > outputEPCList[] > GTIN > Master Data > speciesForFisheryStatisticsPurposesCode

Notes

GDST does not specifically require "commodity" and "variety" elements. However, these elements may be included in/pulled from the product name or the master data associated with the GTIN.

We recommend providing just the GTIN and then providing additional information that can be looked up in an accompanying glossary.

GLOBAL DIALOGUE
on Seafood Traceability

FSMA 204 First Land Based Receiving Event (wild catch only)

FSMA 204 KDE	GDST KDE
Location Description for First Land-Based Receiving (i.e. TLC source) Key contact information for the location where a food is handled, specifically the business name, phone number, physical location address (or geographic coordinates) and city, state, zip code for domestic locations and comparable information for foreign locations. Location identifiers (e.g. store number, GLN, FDA Establishment Number) can be added to or used in place of the location description elements, provided a glossary or key is maintained to indicate the physical address and other required elements for the specific location.	**BUL** Location ID (A07), Location Name (A06), Location Address(A09) **EPCIS – Landing Event** • Landing Event > readPoint Landing Event > readPoint > Master Data > physicalLocationName • Landing Event > readPoint > Master Data > address • Landing Event > readPoint > Master Data > contactPoint.telephone **Notes** It is recommended that the Location ID is provided in the spreadsheet for the event, and that the location name and address are provided in a glossary in the spreadsheet. GDST does not have a specific KDE for contact phone, however, the GS1 Smart Vocabulary JSON-LD for master data supports this KDE.
TLC Source Reference (if applicable) An alternative method for providing FDA with access to the location description for the traceability lot code source as required under this subpart. Examples of a traceability lot code source reference include, but are not limited to, the FDA Food Facility Registration Number for the traceability lot code source or a web address that provides FDA with the location description for the traceability lot code source.	**BUL** Location ID (A07), Location Name (A06), Location Address(A09) **EPCIS –Landing Event for products arriving at processor.** • Landing Event > readPoint • Landing Event > readPoint > Master Data > physicalLocationName • Landing Event > readPoint > Master Data > address • Landing Event > readPoint > Master Data > contactPoint.telephone **Notes** It is recommended that the Location ID is provided in the spreadsheet for the event, and that the location name and address are provided in a glossary in the spreadsheet.

Quantity Landed

Quantity of food associated with event.

BUL

Weight/Quantity (A03/W03)

EPCIS – Receiving Event – Lot-Level Traceability

- Receiving Event > quantityList[].quantity

EPCIS – Receiving Event – Case-Level Traceability

- Receiving Event > epcList[] > GTIN > Master Data > netWeight.value

Notes

When using case-level traceability, the unit of measurement can be obtained by looking at the unit used in the GTINs master data in the "net weight" KDE.

Unit of Measure (landed)

Unit of measure associated with quantity.

BUL

Weight/Quantity (W03)

EPCIS – Landing Event with lot-level traceability.

- Landing Event > quantityList[].uom

EPCIS – Landing Event with case-level traceability.

- Landing Event > epcList > GTIN > Master Data > netWeight.unitCode

Notes

When using case-level traceability, the unit of measurement can be obtained by looking at the unit used in the GTINs master data in the "net weight" KDE.

Reference Document Type A business transaction document, record, or message, in electronic or paper form, that may contain some or all of the key data elements for a critical tracking event in the supply chain of a food. A reference document may be established by you or obtained from another person. Reference document types may include, but are not limited to, bills of lading, purchase orders, advance shipping notices, work orders, invoices, database records, batch logs, production logs, field tags, catch certificates, and receipts.	**BUL** There are no specific GDST KDEs in the BUL for referenced document type. **EPCIS – Landing Event** • Landing Event > bizTransactionList[].type **Notes** GDST has no specific KDE to match the "Reference Document Type" but the "type" attribute of a bizTransaction element in an EPCIS event may be used to fulfill the requirement.
Reference Document Number ID number assigned to a specific reference document. (e.g. PO number, BOL number, WO number, etc.)	**BUL** There are no specific GDST KDEs in the BUL for referenced document type. **EPCIS – Fishing Event** • Landing Event > bizTransactionList[].bizTransaction **Notes** GDST has no specific KDE to match the "Reference Document Number" but the value of a bizTransaction element in an EPCIS event may be used to fulfill the requirement.
Date the Food was Landed Date on which landing event took place	**BUL** Dates of Landing (W22) **EPCIS – Landing Event** • Landing Event > eventTime

Traceability Lot Code

Any descriptor used to uniquely identify a traceability lot within the records of the firm that assigned the traceability lot. TLC must be included in the records required at each CTE. All KDEs must be linked to the TLC once assigned.

BUL

Linking KDE (A02/W02)

EPCIS – Landing Event with lot-level traceability.

- Landing Event > quantityList[].epcClass

EPCIS – Landing Event with lot-level traceability.

- Landing Event > epcList[]

Notes

The Traceability lot code assigment practices must align with those specified by the FDA. GDST reccomends that the Traceability Lot Code is the lot-level EPC of the product (GTIN + Lot Number).

Species and/or Acceptable Market Name for unpackaged food or Product Description for packaged food (Species Name, Brand, Pack Size)

For unpackaged seafood: the species of the seafood being landed.

For packaged seafood: A description of a food product that includes the product name (including, if applicable, the brand name, commodity, and variety), packaging size, and packaging style. For seafood, the product name may include the species and/or acceptable market name.

A single unique identifier (e.g. GTIN) can be used in place of product description KDES provided that a glossary or key is maintained to indicate the complete product description requirements.

BUL

GTIN (W01) + Species (W15)

EPCIS – Farm Harvest Event

- Landing Event > quantityList[].epcClass > GTIN > Master Data > shortDescription
- Landing Event > quantityList[].epcClass > GTIN > Master Data > speciesForFisheryStatisticsPurposesName
- Landing Event > quantityList[].epcClass > GTIN > Master Data > speciesForFisheryStatisticsPurposesCode

EPCIS – Landing Event – Case-Level Traceability

- Landing Event > epcList[] > GTIN > Master Data > shortDescription
- Landing Event > epcList[] > GTIN > Master Data > speciesForFisheryStatisticsPurposesName
- Landing Event > epcList[] > GTIN > Master Data > speciesForFisheryStatisticsPurposesCode

Notes

GDST does not specifically require "commodity" and "variety" elements. However, these elements may be included in/pulled from the product name or the master data associated with the GTIN.

We recommend providing just the GTIN and then providing additional information that can be looked up in an accompanying glossary.

Harvest Date Range for Trip

Range of dates for the trip during which the food was caught.

BUL

Date of Capture (W19)

EPCIS – Fishing Event(s)

- Fishing Event > eventTime
- Fishing Event > ilmd.vesselCatchInformationList[].vesselTripDate

Notes

This requires scanning for all Fishing Events in the event history that relate to the products referenced in the landing event, then taking the min-date and the max-date from the dates collected to define the harvest date range.

Harvest Locations for Trip

Location(s) for the trip during which the food was caught. (as identified under the National Marine Fisheries Service Ocean Geographic Code, the United Nations Food and Agriculture Organization Major Fishing Area list, or any other widely recognized geographical location standard) for the trip during which the food was caught;

BUL

Catch Area KDEs (W14.1 - W14.4)

EPCIS – Fishing Event

- Fishing Event > ilmd.vesselCatchInformationList[].catchArea

Notes

FDA provides no guidelines around what specific data element (e.g. geocoordinates, FAO Zone, etc.) is acceptable for "harvest locations". Our recommendation is to provide a comma separate list of all unique catch area values across all Fishing Events in the event history that relate to the products referenced in the landing event.

FSMA 204 Transformation Event

FSMA 204 KDE	GDST KDE
Location Description for Transformation Event Key contact information for the location where a food is handled, specifically the business name, phone number, physical location address (or geographic coordinates) and city, state, zip code for domestic locations and comparable information for foreign locations. Location identifiers (e.g. store number, GLN, FDA Establishment Number) can be added to or used in place of the location description elements, provided a glossary or key is maintained to indicate the physical address and other required elements for the specific location.	**BUL** Location ID (A07), Location Name (A06), Location Address(A09) **EPCIS – Processing Event** • Processing Event > readPoint • Processing Event > readPoint > Master Data > phsyicalLocationName • Processing Event > readPoint > Master Data > address • Processing Event > readPoint > Master Data > contactPoint.telephone **Notes** It is recommended that the Location ID is provided in the spreadsheet for the event, and that the location name and address are provided in a glossary in the spreadsheet. GDST does not have a specific KDE for contact phone, however, the GS1 Smart Vocabulary JSON-LD for master data supports this KDE.
TLC Source Reference for Transformation Event (if applicable) An alternative method for providing FDA with access to the location description for the traceability lot code source as required under this subpart. Examples of a traceability lot code source reference include, but are not limited to, the FDA Food Facility Registration Number for the traceability lot code source or a web address that provides FDA with the location description for the traceability lot code source.	**BUL** Location ID (A07) **EPCIS – Receiving Event for products arriving at processor.** • Processing Event > readPoint • Processing Event > readPoint > Master Data > physicalLocationName • Processing Event > readPoint > Master Data > address • Processing Event > readPoint > Master Data > contactPoint.telephone **Notes** It is recommended that the Location ID is provided in the spreadsheet for the event, and that the location name and address are provided in a glossary in the spreadsheet. GDST does not have a specific KDE for contact phone, however, the GS1 Smart Vocabulary JSON-LD for master data supports this KDE.

GLOBAL DIALOGUE
on Seafood Traceability

Quantity Input (for FTL foods used as ingredients) Quantity of food associated with event	**BUL** Weight/Quantity (A03/W03) **EPCIS – Processing Event – Lot-Level Traceability** • Processing Event > inputQuantityList[].quantity **EPCIS – Processing Event – Case-Level Traceability** • Processing Event > inputEPCList[] > GTIN > Master Data > netWeight.value **Notes** When using case-level traceability, the unit of measurement can be obtained by looking at the unit used in the GTINs master data in the "net weight" KDE.
Unit of Measure (input) Unit of measure associated with quantity	**BUL** Weight/Quantity (A03/W03) **EPCIS – Processing Event with lot-level traceability.** • Processing Event > inputQuantityList[].uom **EPCIS – Processing Event with case-level traceability.** • Processing Event > inputEPCList[] > GTIN > Master Data > netWeight.unitCode **Notes** When using case-level traceability, the unit of measurement can be obtained by looking at the unit used in the GTINs master data in the "net weight" KDE.

Product Description Input (for FTL foods used as ingredients)

A description of a food product that includes the product name (including, if applicable, the brand name, commodity, and variety), packaging size, and packaging style. For seafood, the product name may include the species and/or acceptable market name.

A single unique identifier (e.g. GTIN) can be used in place of product description KDES provided that a glossary or key is maintained to indicate the complete product description requirements.

BUL

GTIN (W01) + Species (W15)

EPCIS – Processing Event – Lot-Level Traceability

- Processing Event > inputQuantityList[].epcClass > GTIN > Master Data > shortDescription
- Processing Event > inputQuantityList[].epcClass > GTIN > Master Data > speciesForFisheryStatisticsPurposesName
- Processing Event > inputQuantityList[].epcClass > GTIN > Master Data > speciesForFisheryStatisticsPurposesCode

EPCIS – Processing Event – Case-Level Traceability

- Processing Event > inputEPCList > GTIN > Master Data > shortDescription
- Processing Event > inputEPCList > GTIN > Master Data > speciesForFisheryStatisticsPurposesName
- Processing Event > inputEPCList > GTIN > Master Data > speciesForFisheryStatisticsPurposesCode

Notes

GDST does not specifically require "commodity" and "variety" elements. However, these elements may be included in/pulled from the product name or the master data associated with the GTIN.

We recommend providing just the GTIN and then providing additional information that can be looked up in an accompanying glossary.

Traceability Lot Code Input (for FTL foods used as ingredients)

Any descriptor used to uniquely identify a traceability lot within the records of the firm that assigned the traceability lot. TLC must be included in the records required at each CTE. All KDEs must be linked to the TLC once assigned.

BUL

Location ID (A07)

EPCIS – Processing Event – Lot-Level Traceability

- Processing Event > inputQuantityList[].epcClass

EPCIS – Processing Event – Case-Level Traceability

- Processing Event > inputEPCList[]

Notes

The Traceability lot code assigment practices must align with those specified by the FDA. GDST reccomends that the Traceability Lot Code is the lot-level EPC of the product (GTIN + Lot Number).

Quantity Output (new food produced) Quantity of food associated with event	**BUL** Weight/Quantity (A03/W03) **EPCIS – Processing Event – Lot-Level Traceability** • Processing Event > outputQuantityList[].quantity **EPCIS – Processing Event – Case-Level Traceability** • Processing Event > outputEPCList[] > GTIN > Master Data > netWeight.value **Notes** When using case-level traceability, the unit of measurement can be obtained by looking at the unit used in the GTINs master data in the "net weight" KDE.
Unit of Measure (output) Unit of measure associated with quantity	**BUL** Weight/Quantity (A03/W03) **EPCIS – Processing Event – Lot-Level Traceability** • Processing Event > outputQuantityList[].uom **EPCIS – Processing Event – Case-Level Traceability** • Processing Event > outputEPCList > GTIN > Master Data > netWeight.unitCode **Notes** When using case-level traceability, the unit of measurement can be obtained by looking at the unit used in the GTINs master data in the "net weight" KDE.

GLOBAL DIALOGUE
on Seafood Traceability

Traceability Lot Code for New Food Produced

Any descriptor used to uniquely identify a traceability lot within the records of the firm that assigned the traceability lot. TLC must be included in the records required at each CTE. All KDEs must be linked to the TLC once assigned.

BUL

Linking KDE (A02/W02)

EPCIS – Processing Event – Lot-Level Traceability

• Processing Event > outputQuantityList[].epcClass

EPCIS – Processing Event – Case-Level Traceability

• Processing Event > outputEPCList[]

Notes

The Traceability lot code assigment practices must align with those specified by the FDA. GDST reccomends that the Traceability Lot Code is the lot-level EPC of the product (GTIN + Lot Number).

Product Description for New Food Produced (Species Name, Brand, Pack Size)

A description of a food product that includes the product name (including, if applicable, the brand name, commodity, and variety), packaging size, and packaging style. For seafood, the product name may include the species and/or acceptable market name.

A single unique identifier (e.g. GTIN) can be used in place of product description KDES provided that a glossary or key is maintained to indicate the complete product description requirements.

BUL

GTIN (W01) + Species (W15)

EPCIS – Processing Event – Lot-Level Traceability

• Processing Event > outputQuantityList[].epcClass > GTIN > Master Data > shortDescription
• Processing Event > outputQuantityList[].epcClass > GTIN > Master Data > speciesForFisheryStatisticsPurposesName
• Processing Event > outputQuantityList[].epcClass > GTIN > Master Data > speciesForFisheryStatisticsPurposesCode

EPCIS – Processing Event – Case-Level Traceability

• Processing Event > outputEPCList[] > GTIN > Master Data > shortDescription
• Processing Event > outputEPCList[] > GTIN > Master Data > speciesForFisheryStatisticsPurposesName
• Processing Event > outputEPCList[] > GTIN > Master Data > speciesForFisheryStatisticsPurposesCode

Notes

GDST does not specifically require "commodity" and "variety" elements. However, these elements may be included in/pulled from the product name or the master data associated with the GTIN.

We recommend providing just the GTIN and then providing additional information that can be looked up in an accompanying glossary.

Reference Document Type

A business transaction document, record, or message, in electronic or paper form, that may contain some or all the key data elements for a critical tracking event in the supply chain of a food.

A reference document may be established by you or obtained from another person. Reference document types may include, but are not limited to, bills of lading, purchase orders, advance shipping notices, work orders, invoices, database records, batch logs, production logs, field tags, catch certificates, and receipts.

BUL

There are no specific GDST KDEs in the BUL for referenced document type.

EPCIS – Processing Event

- Processing Event > bizTransactionList[].type

Notes

GDST has no specific KDE to match the "Reference Document Type" but the "type" attribute of a bizTransaction element in an EPCIS event may be used to fulfill the requirement.

Reference Document Number

ID number assigned to a specific reference document. (e.g. PO number, BOL number, WO number, etc.)

BUL

There are no specific GDST KDEs in the BUL for referenced document type.

EPCIS – Processing Event

- Processing > bizTransactionList[].bizTransaction

Notes

GDST has no specific KDE to match the "Reference Document Number" but the value of a bizTransaction element in an EPCIS event may be used to fulfill the requirement.

Transformation Date

Date on which transformation event took place.

BUL

There is no specific KDE listed in the BUL regarding the receive date for a processing event, however the CTE/KDE matrix in the Core Normative Standard lists the Event Time as a required KDE for each event.

EPCIS – Receive Event

- Processing Event > eventTime

FSMA 204 Shipping Event

FSMA 204 KDE	GDST KDE
Location Description for the Immediate Subsequent Recipient (ship-to location) Key contact information for the location where a food is handled, specifically the business name, phone number, physical location address (or geographic coordinates) and city, state, zip code for domestic locations and comparable information for foreign locations. Location identifiers (e.g. store number, GLN, FDA Establishment Number) can be added to or used in place of the location description elements, provided a glossary or key is maintained to indicate the physical address and other required elements for the specific location.	**BUL** Location ID (A07), Location Name (A06), Location Address(A09) **EPCIS – Shipping Event** • Shipping Event > destinationList[].destination • Shipping Event > destinationList[].destination > Master Data > physicalLocationName • Shipping Event > destinationList[].destination > Master Data > address • Shipping Event > destinationList[].destination > Master Data > contactPoint.telephone *For the destination with type "location".* **Notes** It is recommended that the Location ID is provided in the spreadsheet for the event, and that the location name and address are provided in a glossary in the spreadsheet. GDST does not have a specific KDE for contact phone, however, the GS1 Smart Vocabulary JSON-LD for master data supports this KDE.
Location Description for Shipping Event (e.g. ship-from location) Key contact information for the location where a food is handled, specifically the business name, phone number, physical location address (or geographic coordinates) and city, state, zip code for domestic locations and comparable information for foreign locations. Location identifiers (e.g. store number, GLN, FDA Establishment Number) can be added to or used in place of the location description elements, provided a glossary or key is maintained to indicate the physical address and other required elements for the specific location.	**BUL** Location ID (A07), Location Name (A06), Location Address(A09) **EPCIS – Shipping Event** • Shipping Event > sourceList[].source • Shipping Event > sourceList[].source > Master Data > physicalLocationName • Shipping Event > sourceList[].source > Master Data > address • Shipping Event > sourceList[].source > Master Data > contactPoint.telephone *For the source with type "location".* **Notes** It is recommended that the Location ID is provided in the spreadsheet for the event, and that the location name and address are provided in a glossary in the spreadsheet. GDST does not have a specific KDE for contact phone, however, the GS1 Smart Vocabulary JSON-LD for master data supports this KDE.

Quantity Shipped Quantity of food associated with event	**BUL** Weight/Quantity (A03) **EPCIS – Shipping Event – Lot-Level Traceability** • Shipping Event > quantityList[].quantity **EPCIS – Shipping Event – Case-Level Traceability** • Shipping Event > epcList[] > GTIN > Master Data > netWeight.value **Notes** When using case-level traceability, the unit of measurement can be obtained by looking at the unit used in the GTINs master data in the "net weight" KDE.
Unit of Measure Unit of measure associated with quantity	**BUL** Weight/Quantity (A03/W03) **EPCIS – Shipping Event – Lot-Level Traceability** • Shipping Event > quantityList[].uom **EPCIS – Shipping Event – Case-Level Traceability** • Shipping Event > epcList[] > GTIN > Master Data > netWeight > uom **Notes** When using case-level traceability, the unit of measurement can be obtained by looking at the unit used in the GTINs master data in the "net weight" KDE.
Ship Date Date on which shipping event took place.	**BUL** There is no specific KDE listed in the BUL regarding the ship date for a shipping event, however the CTE/KDE matrix in the Core Normative Standard lists the Event Time as a required KDE for each event. **EPCIS – Shipping Event** • Shipping Event > eventTime

Reference Document Type A business transaction document, record, or message, in electronic or paper form, that may contain some or all the key data elements for a critical tracking event in the supply chain of a food. A reference document may be established by you or obtained from another person. Reference document types may include, but are not limited to, bills of lading, purchase orders, advance shipping notices, work orders, invoices, database records, batch logs, production logs, field tags, catch certificates, and receipts.	**BUL** There are no specific GDST KDEs in the BUL for referenced document type. **EPCIS – Shipping Event** • Shipping Event > bizTransactionList[].type **Notes** GDST has no specific KDE to match the "Reference Document Type" but the "type" attribute of a bizTransaction element in an EPCIS event may be used to fulfill the requirement.
Reference Document Number ID number assigned to a specific reference document. (e.g. PO number, BOL number, WO number, etc.)	**BUL** There are no specific GDST KDEs in the BUL for referenced document type. **EPCIS – Shipping Event** • Shipping > bizTransactionList[].bizTransaction **Notes** GDST has no specific KDE to match the "Reference Document Number" but the value of a bizTransaction element in an EPCIS event may be used to fulfill the requirement.

Traceability Lot Code

Any descriptor used to uniquely identify a traceability lot within the records of the firm that assigned the traceability lot. TLC must be included in the records required at each CTE. All KDEs must be linked to the TLC once assigned.

BUL

Linking KDE (A02/02)

EPCIS – Shipping Event – Lot-Level Traceability

• Shipping Event > outputQuantityList[].epcClass

EPCIS – Shipping Event – Case-Level Traceability

• Shipping Event > outputEPCList[]

Notes

The "Creation Event" is the event that brought the product into existence. This is either the OBJECT - ADD event or a TRANSFORMATION event where the product (EPC) is listed as an output. Creation events in GDST are Fishing, Farm Harvest, Hatching, Feed mill, or Processing events. A product should only have one creation event.

The Traceability lot code assigment practices must align with those specified by the FDA. GDST reccomends that the Traceability Lot Code is the lot-level EPC of the product (GTIN + Lot Number).

Product Description (Species Name, Brand, Pack Size)

A description of a food product that includes the product name (including, if applicable, the brand name, commodity, and variety), packaging size, and packaging style. For seafood, the product name may include the species and/or acceptable market name.

A single unique identifier (e.g. GTIN) can be used in place of product description KDES provided that a glossary or key is maintained to indicate the complete product description requirements.

BUL

GTIN (W01) + Species (W15)

EPCIS – Shipping Event – Lot-Level Traceability

• Shipping Event > outputQuantityList[].epcClass > GTIN > Master Data > shortDescription
• Shipping Event > outputQuantityList[].epcClass > GTIN > Master Data > speciesForFisheryStatisticsPurposesName
• Shipping Event > outputQuantityList[].epcClass > GTIN > Master Data > speciesForFisheryStatisticsPurposesCode

EPCIS – Shipping Event – Case-Level Traceability

• Shipping Event > outputEPCList > GTIN > Master Data > shortDescription
• Shipping Event > outputEPCList > GTIN > Master Data > speciesForFisheryStatisticsPurposesName
• Shipping Event > outputEPCList > GTIN > Master Data > speciesForFisheryStatisticsPurposesCode

	Notes
	GDST does not specifically require "commodity" and "variety" elements. However, these elements may be included in/pulled from the product name or the master data associated with the GTIN. We recommend providing just the GTIN and then providing additional information that can be looked up in an accompanying glossary.
Location Description for Traceability Lot Code Source or Traceability Lot Code Source Reference An alternative method for providing FDA with access to the location description for the traceability lot code source as required under this subpart. Examples of a traceability lot code source reference include, but are not limited to, the FDA Food Facility Registration Number for the traceability lot code source or a web address that provides FDA with the location description for the traceability lot code source.	**BUL** Location ID (A07) **EPCIS – Creation Event** • Creation Event > readPoint • Creation Event > readPoint > Master Data > physicalLocationName • Creation Event > readPoint > Master Data > address • Creation Event > readPoint > Master Data > contactPoint.telephone **Notes** The "Creation Event" is the event that brought the product into existence. This is either the OBJECT – ADD event or a TRANSFORMATION event where the product (EPC) is listed as an output. Creation events in GDST are Fishing, Farm Harvest, Hatching, Feed mill, or Processing events. A product should only have one creation event. It is recommended that the Location ID is provided in the spreadsheet for the event, and that the location name and address are provided in a glossary in the spreadsheet. GDST does not have a specific KDE for contact phone, however, the GS1 Smart Vocabulary JSON-LD for master data supports this KDE.

FSMA 204 Receiving Event

FSMA 204 KDE	GDST KDE
Location Description for the Immediate Previous Source (e.g. ship-from location) Key contact information for the location where a food is handled, specifically the business name, phone number, physical location address (or geographic coordinates) and city, state, zip code for domestic locations and comparable information for foreign locations. Location identifiers (e.g. store number, GLN, FDA Establishment Number) can be added to or used in place of the location description elements, provided a glossary or key is maintained to indicate the physical address and other required elements for the specific location.	**BUL** Location ID (A07), Location Name (A06), Location Address(A09) **EPCIS – Shipping Event** • Receiving Event > sourceList[].source • Receiving Event > sourceList[].source > Master Data > physicalLocationName • Receiving Event > sourceList[].source > Master Data > address • Receiving Event > sourceList[].source > Master Data > contactPoint.telephone *For the source with type "location".* **Notes** It is recommended that the Location ID is provided in the spreadsheet for the event, and that the location name and address are provided in a glossary in the spreadsheet. GDST does not have a specific KDE for contact phone, however, the GS1 Smart Vocabulary JSON-LD for master data supports this KDE.
Location Description for Receiving Event (e.g. location where the food was received) Key contact information for the location where a food is handled, specifically the business name, phone number, physical location address (or geographic coordinates) and city, state, zip code for domestic locations and comparable information for foreign locations. Location identifiers (e.g. store number, GLN, FDA Establishment Number) can be added to or used in place of the location description elements, provided a glossary or key is maintained to indicate the physical address and other required elements for the specific location.	**BUL** Location ID (A07), Location Name (A06), Location Address(A09) **EPCIS – Receiving Event** • Receiving Event > readPoint • Receiving Event > readPoint> Master Data > physicalLocationName • Receiving Event > readPoint • Receiving Event > readPoint > Master Data > contact *For the destination with type "location".* **Notes** It is recommended that the Location ID is provided in the spreadsheet for the event, and that the location name and address are provided in a glossary in the spreadsheet. GDST does not have a specific KDE for contact phone, however, the GS1 Smart Vocabulary JSON-LD for master data supports this KDE.

Quantity Received	**BUL**
Quantity of food associated with event	Weight/Quantity (A03/W03)
	EPCIS – Receiving Event – Lot-Level Traceability
	• Receiving Event > quantityList[].quantity
	EPCIS – Receiving Event – Case-Level Traceability
	• Receiving Event > epcList[] > GTIN > Master Data > netWeight.value
	Notes
	When using case-level traceability, the unit of measurement can be obtained by looking at the unit used in the GTINs master data in the "net weight" KDE.
Unit of Measure	**BUL**
Unit of measure associated with quantity	Weight/Quantity (A03/W03)
	EPCIS – Receiving Event – Lot-Level Traceability
	• Receiving Event > quantityList[].uom
	EPCIS – Receiving Event – Case-Level Traceability
	• Receiving Event > epcList[] > GTIN > Master Data > netWeight.unitCode
	Notes
	When using case-level traceability, the unit of measurement can be obtained by looking at the unit used in the GTINs master data in the "net weight" KDE.
Reference Document Type	**BUL**
A business transaction document, record, or message, in electronic or paper form, that may contain some or all the key data elements for a critical tracking event in the supply chain of a food.	There are no specific GDST KDEs in the BUL for referenced document type.
A reference document may be established by you or obtained from another person.	**EPCIS – Receiving Event**
	• Receiving Event > bizTransactionList[].type

Reference document types may include, but are not limited to, bills of lading, purchase orders, advance shipping notices, work orders, invoices, database records, batch logs, production logs, field tags, catch certificates, and receipts.	**Notes** GDST has no specific KDE to match the "Reference Document Type" but the "type" attribute of a bizTransaction element in an EPCIS event may be used to fulfill the requirement.
Reference Document Number ID number assigned to a specific reference document. (e.g. PO number, BOL number, WO number, etc.)	**BUL** There are no specific GDST KDEs in the BUL for referenced document type. **EPCIS – Receiving Event** • Receiving Event > bizTransactionList[].bizTransaction **Notes** GDST has no specific KDE to match the "Reference Document Number" but the value of a bizTransaction element in an EPCIS event may be used to fulfill the requirement.
Traceability Lot Code - Any descriptor used to uniquely identify a traceability lot within the records of the firm that assigned the traceability lot. TLC must be included in the records required at each CTE. All KDEs must be linked to the TLC once assigned.	**BUL** Linking KDE (A02/W02) **EPCIS – Receive Event – Lot-Level Traceabilty** • Receive Event > quantityList[].epcClass **EPCIS – Receive Event – Case-Level Traceability** • Receive Event > epcList[] **Notes** Regardless of assigning a TLC to an exempt product or receiving a non-exempt product, the EPC should be the TLC. The Traceability lot code assigment practices must align with those specified by the FDA. GDST reccomends that the Traceability Lot Code is the lot-level EPC of the product (GTIN + Lot Number).

Product Description (Species Name, Brand, Pack Size)

A description of a food product that includes the product name (including, if applicable, the brand name, commodity, and variety), packaging size, and packaging style. For seafood, the product name may include the species and/or acceptable market name.

A single unique identifier (e.g. GTIN) can be used in place of product description KDES provided that a glossary or key is maintained to indicate the complete product description requirements.

BUL

GTIN (W01) + Species (W15)

EPCIS – Receiving Event – Lot-Level Traceability

- Receiving Event > quantityList[].epcClass > GTIN > Master Data > shortDescription
- Receiving Event > quantityList[].epcClass > GTIN > Master Data > speciesForFisheryStatisticsPurposesName
- Receiving Event > quantityList[].epcClass > GTIN > Master Data > speciesForFisheryStatisticsPurposesCode

EPCIS – Receiving Event – Case-Level Traceability

- Receiving Event > epcList > GTIN > Master Data > shortDescription
- Receiving Event > epcList > GTIN > Master Data > speciesForFisheryStatisticsPurposesName
- Receiving Event > epcList > GTIN > Master Data > speciesForFisheryStatisticsPurposesCode

Notes

GDST does not specifically require "commodity" and "variety" elements. However, these elements may be included in/pulled from the product name or the master data associated with the GTIN.

We recommend providing just the GTIN and then providing additional information that can be looked up in an accompanying glossary.

Location Description for Traceability Lot Code Source or Traceability Lot Code Source Reference

An alternative method for providing FDA with access to the location description for the traceability lot code source as required under this subpart. Examples of a traceability lot code source reference include, but are not limited to, the FDA Food Facility Registration Number for the traceability lot code source or a web address that provides FDA with the location description for the traceability lot code source.

BUL

Location ID (A07)

EPCIS – Creation Event – Not Receiving from Exempt Entity

- Creation Event > readPoint
- Creation Event > readPoint > Master Data > physicalLocationName
- Creation Event > readPoint > Master Data > contactPoint.telephone

EPCIS – Receive Event – Receiving from Exempt Entity

- Receiving Event > destinationList[].destination
- Receiving Event > destinationList[].destination > Master Data > physicalLocationName
- Receiving Event > destinationList[].destination > Master Data > address
- Receiving Event > destinationList[].destination > Master Data > contactPoint.telephone

For the destination with type "location".+

Notes

The "Creation Event" is the event that brought the product into existence. This is either the OBJECT – ADD event or a TRANSFORMATION event where the product (EPC) is listed as an output. Creation events in GDST are Fishing, Farm Harvest, Hatching, Feed mill, or Processing events. A product should only have one creation event.

It is recommended that the Location ID is provided in the spreadsheet for the event, and that the location name and address are provided in a glossary in the spreadsheet.

GDST does not have a specific KDE for contact phone, however, the GS1 Smart Vocabulary JSON-LD for master data supports this KDE.