

A Guide to GS1 Standards Adoption for Supply Chain Visibility



Important: As with all GS1 Standards and solutions, this guideline is voluntary, not mandatory. It should be noted that use of the words “must” and “require” throughout this document relate exclusively to technical recommendations for the proper application of the standards to support the integrity of your implementation.

Product Identification and Information Sharing	Resources
Standardized Product Identification	
<ul style="list-style-type: none"> • Obtain Company Prefix to create Global Trade Item Number® (GTIN®) • Prepare internal systems to assign, send, and receive GTINs at the appropriate level for your product hierarchy <ul style="list-style-type: none"> ○ Note: Use GTINs as the identifiers for products in all business transactions (inventory, invoices, Purchase Orders, Bill of Ladings, Advanced Ship Notice (ASN)) with trading partners <ul style="list-style-type: none"> - Manufacturers assign GTINs to products they own - Retailers assign GTINs to their private label products 	<ul style="list-style-type: none"> • License a GS1 Company Prefix • When Do I Need a New GTIN • GS1 US Check Digit Calculator • Data Hub – Product
Product Master Data Sharing	
<ul style="list-style-type: none"> • Publish and receive item information for products <ul style="list-style-type: none"> ○ Global Data Synchronization Network™ (GDSN®) – can share core product master data such as: weights, dimensions, nutritional information, images, allergens, etc. with trading partners ○ Global Data Model (GDM) - identify and define the set of foundational attributes needed to manage a product through its life cycle. Goal is to reduce complexity by harmonizing foundational data across the industry 	<ul style="list-style-type: none"> • What is GDSN • How to Select a GDSN Certified Data Pool • GS1 US Solution Provider Finder - GDSN • GS1 Global Data Model – Retail Grocery
Data Accuracy Processes for Supply Chain Data	
<ul style="list-style-type: none"> • Establish business rules with your data pool provider or Product Information Master (PIM) solution provider • Ensure product attributes are within tolerances – Attribute Audit within the National Data Quality Program (NDQP) • Set up your system for periodic monitoring of attribute data – Data Governance with the NDQP 	<ul style="list-style-type: none"> • GS1 US National Data Quality Program • Data Quality Playbook • Package Measurement Rules

Visibility (Traceability, Inventory Management, Sustainability)	Resources
Standardized Location Identification	
<ul style="list-style-type: none"> • Assign Global Location Number (GLN) using <ul style="list-style-type: none"> ○ Owner assigns GS1 Global Location Numbers (GLNs) to all plants, warehouses, distribution centers, redistribution centers, stores and restaurants, hospitals, etc. using the assigned GS1 Company Prefix 	<ul style="list-style-type: none"> • An Introduction to Global Location Number • Data Hub – Location
Transaction and Physical Event Data Sharing	
<ul style="list-style-type: none"> • Send electronic business transactions to facilitate streamlined processes (e.g., Advanced Ship Notice (ASN), Purchase Orders, Invoices) via EDI, XML, or flat file to direct trading partners which should include both GTINs and GLNs • Implement EPCIS for physical event related data, such as tracking the movement of the product throughout the supply chain, or transformation events such as different ingredients being combined into one product <ul style="list-style-type: none"> ○ Utilize Critical Tracking Events (CTE) and Key Data Elements (KDE) 	<ul style="list-style-type: none"> • EDI Guidance • EDI 856 Foodservice Ship Notice Explained • EPCIS Guidance • CTE/KDE - Fresh Foods Management Solution • Explore CTEs/KDEs
Barcode/RFID Tagging/2D	
<ul style="list-style-type: none"> • Apply Industry relevant data carriers to cases with applicable attributes (GS1 AIs): <ul style="list-style-type: none"> ○ E.g., RFID tags, GS1-128/2D barcodes with GTINs, Batch/Lot Numbers (dates for food) • Where applicable, apply/Scan SSCC (Serial Shipping Container Codes) to pallets and send/receive ASN's to direct trading partners detailing how many cases of each Lot Code they will receive • Distributors/warehouses: Capture information on data carriers, if present, on cases at time of pick • Scan/capture data carrier information as applicable 	<ul style="list-style-type: none"> • EPC Tag Data Standard (TDS) 2.0 • GS1 Data Matrix Guideline • NA Case Labeling Guideline • Food Industry Guidance for Streamlining Your Logistics Labels • An Introduction to the Serial Shipping Container Code (SSCC)

Please see the [GS1 US Supply Chain Visibility Webpage](#) for additional information, including industry specific use cases, case studies, education modules and more!

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