



The Global Language of Business

The Why

Driving Business Value Beyond FSMA 204 Regulatory Compliance



Antitrust Caution



GS1 US is committed to complying fully with antitrust laws.

We ask and expect everyone to refrain from discussing prices, margins, discounts, suppliers, the timing of price changes, marketing or product plans, or other competitively sensitive topics.

If anyone has concerns about the propriety of a discussion, please inform a GS1 US® representative as soon as possible.

Please remember to make your own business decisions and that all GS1 Standards are voluntary and not mandatory.

Please review the complete GS1 US antitrust policy at:
<https://www.gs1us.org/antitrust-policy>

Legal Disclosure



GS1 US, Inc. is providing this presentation, as is, as a service to interested parties. GS1 US MAKES NO REPRESENTATIONS IN THIS REGARD AND DISCLAIMS ALL WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY WARRANTY OF ACCURACY OR RELIABILITY OF ANY CONTENT, NONINFRINGEMENT, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE.

GS1 US shall not be liable for any consequential, special, indirect, incidental, liquidated, exemplary, or punitive damages of any kind or nature whatsoever, or any lost income or profits, under any theory of liability, arising out of the use of this presentation or any content herein, even if advised of the possibility of such loss or damage or if such loss or damage could have been reasonably foreseen.

***GS1 US employees are not representatives or agents of the U.S. FDA, and the content of this presentation has not been reviewed, approved, or authorized by the U.S. FDA.**

*If applicable

Speaker Introductions



Doug Baker
Vice President, Industry Relations
FMI



Liz Sertl
Sr. Director, Community Engagement
GS1 US



Who We Are



GS1 – The Global Language Of Business

GS1 is a global standards organization

Neutral and
not-for-profit

User-driven
and governed

Global
and local

Inclusive and
collaborative

115 Member Organizations

Serving 150 Countries

Over 10 billion scans a day

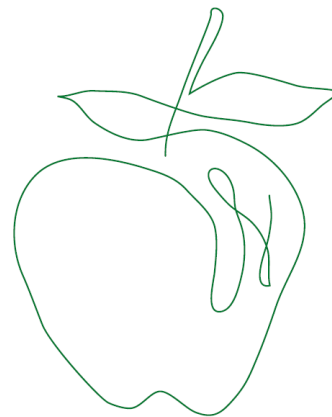
**Standard of choice by
+65 governments globally**

FMI – The Food Industry Association



As the **food industry association**, FMI works with and on behalf of the entire industry to advance a **safer, healthier** and **more efficient** consumer food supply.

FMI brings together a wide range of members across the value chain — from **retailers** who sell to **consumers**, to **producers** who supply the food, as well as the wide-variety of companies providing critical services — to **amplify** the collective work of the industry.



www.fmi.org



What is FSMA Final Rule Section 204?



FSMA 204 Final Rule Basics

What is it and Who is Impacted?

FSMA Final Rule on Requirements for Additional Traceability Records for high-risk products outlined in the **Food Traceability List**. **Includes foreign and domestic entities. Full and partial exemptions may apply.**

What is Required?

Must keep records on foods from Farm to Store/Restaurant by **production LOT**. Supply chain partners need to share records. Provide **CTEs-KDEs to FDA within 24 hours**.
Must keep a documented **Traceability Plan**

When?

FINAL Rule Effective: January 2023
Compliance date: January 2026
Records should be maintained for 2 years

Food Traceability List



Cheeses
(other than hard
cheeses)



Crustaceans
(fresh and frozen)



Cucumbers
(fresh)



Finfish
(fresh and frozen)



Fruit
(fresh cut)



Herbs
(fresh)



Leafy Greens
(fresh)



Leafy Greens
(fresh cut)



Melons
(fresh)



**Molluscan
Shellfish, Bivalves**
(fresh and frozen)



Nut Butters



Peppers
(fresh)



**Ready-to-Eat
Deli Salads**
(refrigerated)



Sprouts
(fresh)



Shell Eggs



**Smoked
Finfish**
(refrigerated
and frozen)



Tomatoes
(fresh)



**Tropical Tree
Fruit**
(fresh)



**Vegetables
Other Than
Leafy Greens**
(fresh cut)



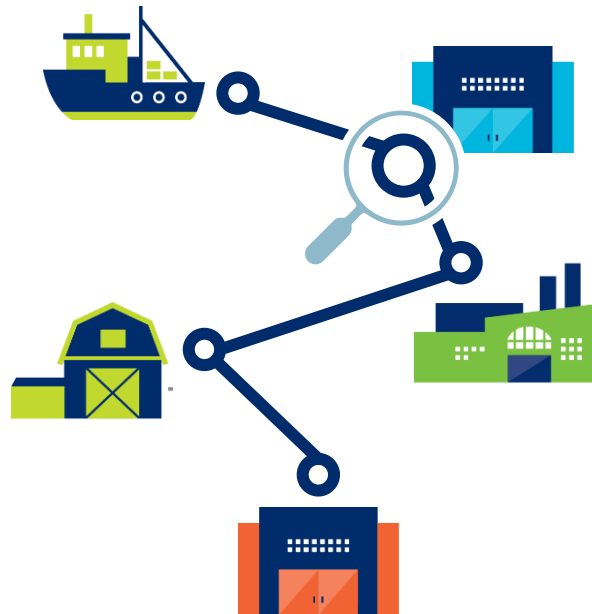
Traceability



trace·a·bil·i·ty

noun

the quality of having an origin or course of development that may be found or followed.



How do GS1 Standards Enable Traceability for Enhanced Food Safety?







Healthcare went first

Leverage Standards, Beyond Regulation, for Supply Chain Visibility



- **Medical Devices:** The U.S. FDA's Unique Device Identification System final rule (UDI Rule) is aimed to identify medical devices sold in the United States, from manufacturing through distribution to patient use.
- **Pharmaceutical Drugs:** The Drug Supply Chain Security Act (DSCSA) has its final milestone in November of this year, which will require item-level serialized traceability in an interoperable manner across the U.S. pharmaceutical industry.

Pharmaceutical Community Example

The stakeholders of the Pharmaceutical community leaned in together to solve how the industry could meet the requirements of the Drug Supply Chain Security Act (DSCSA)

- DSCSA mandates the industry to build an electronic, interoperable system to identify and trace certain prescription drugs as they are distributed in the United States.
- This creates interdependencies with all stakeholders in the supply chain.
- The industry has responded by collaborating to construct the means to meet these requirements **and more to improve the overall supply chain.**



DSCSA Timeline with GS1 Rx Secure Supply Chain Workgroup Actions



Regulatory Requirements



Federal licensure standards for distributors raised

Transaction information provided by Manufacturer, Wholesaler, and Repackager. Transact only with authorized trading partners

FDA enforcement discretion ends

Transaction information accepted by Dispensers

DSCSA Enacted

3PLs must report licensure information to FDA annually

Manufacturers must serialize and verify products

Repackagers must serialize products

2013

Applying GS1 Standards for DSCSA and Traceability, R1.0 implementation guideline published

2014

Applying GS1 Standards for DSCSA and Traceability, R1.1 implementation guideline published

2015

2016

Guideline Addendums:

- Guidance and XML Examples for Supply Chain Choreographies in Lot-Level Management,
- Diagrams and XML Examples for Lot-Level Management
- Exceptions Processing
- Diagrams and XML Examples for Serialized Exceptions Processing

NDC Labeler Code Program

2017

Frequently Asked Questions (FAQs) by the Pharmaceutical Industry in Preparing for the U.S. DSCSA R1.0 published

2017 update published: Implementation of DSCSA Serialization Requirements

2018

Guidance published for Pharmaceutical Products Marked with Both UPC-A and GS1 DataMatrix, R1.0

2018 Update Published: Implementation of DSCSA Serialization Requirements

GS1 US submitted a comment letter to the U. S. FDA on Product Identifiers

GS1 US submitted a comment letter to the U. S. FDA on Verification Systems

Workgroup Publications



DSCSA Timeline with GS1 Rx Secure Supply Chain Workgroup Actions



FDA delays enforcement of saleable returns requirement by 1 year for wholesalers

All dispenser must be complying with all verification requirements

Wholesalers and Distributors only receive and distribute serialized products. Returns verified.

FDA delays enforcement of saleable returns requirement by 3 years for wholesalers and dispensers

Full interoperable electronic serialized unit-level traceability for all stakeholders. Dispensers only receive and ship/dispense serialized products. Dispensers verify product identifiers.

2019

2019 update published Implementation of DSCSA Serialization Requirements

GS1 US Lightweight Messaging Standard for DSCSA Verification

2020

Implementation guideline published: Applying the GS1 Lightweight Messaging Standard for DSCSA Verification of Returned Product Identifiers, R1.1

2021

2020 update published Implementation of DSCSA Serialization Requirements

Implementation guideline published: Applying GS1 System of Standards to Pharmaceutical Chain of Custody, R1.1

Implementation guideline published Applying the GS1 Lightweight Messaging Standard for DSCSA Verification of Returned Product Identifiers, R1.2

2022

GS1 US submitted a comment letter to the U. S. FDA on Enhanced Drug Distribution Security at the Package Level Under DSCSA

Frequently Asked Questions (FAQs) by the Pharmaceutical Industry in Preparing for the U.S. DSCSA, R1.0.1

Implementation guideline published: Applying the GS1 Lightweight Messaging Standard for DSCSA Verification of Product Identifiers, R1.3

2022 Update: Implementation of DSCSA Serialization Requirements

Implementation guideline published: Applying GS1 Standards for DSCSA and Traceability, R1.3

2023

GS1 US submitted a comment letter to the U.S. FDA on Drug Supply Chain Security Act (DSCSA) Implementation and Readiness Efforts for 2023

Applying GS1 Standards for DSCSA and Traceability, Addendum: Guidance and XML Examples for Supply Chain Choreographies in Serialized Item-Level Management, R1.3

Applying the GS1 Lightweight Messaging Standard for DSCSA Verification of Product Identifiers, R1.3.1

Best Practice Guidance for Transition Inventory November 2023 DSCSA

2023 - Planned

Applying GS1 Standards for DSCSA and Traceability, Addendum: Diagrams and XML Examples for Serialized Item-Level Exception Handling, R1.3, to be published

Updates to:
FAQs by the Pharmaceutical Industry in Preparing for the U.S. DSCSA, R1.2
Applying GS1 System of Standards to Pharmaceutical Chain of Custody, R1.2





GS1 US Resources



- [DSCSA Webpage](#)
 - [DSCSA, Guidance by Stakeholder, GLNs, Resources, FAQs](#)
- [Rx Secure Supply Chain Workgroup](#)
 - [Implementation Guidelines](#)
 - [Supply Chain Scenarios](#)
 - [Exception Handling](#)
 - [FAQs](#)
 - [Verification Messaging Standard](#)
- [Education and Training:](#)
 - [Overview of GS1 Standards for DSCSA Dispensers](#) (25-30 minutes)
 - [GS1 Standards for DSCSA Suppliers Online Certificate](#) (8 Modules)

Resource	What It Will Help With
Frequently Asked Questions in Preparing for the U.S. DSCSA	Answering frequently asked questions about identifying, capturing and sharing information to help meet DSCSA requirements.
GS1 US DSCSA Implementation Guidelines	Understanding technical requirements for encoding your product with GS1 Identifiers and how to capture GS1 product identifiers when receiving shipments.
Applying Lightweight Messaging Standard for Verification of Product Identifiers	Configuring PI verification business scenarios and technical requirements for responding to verification requests from your direct and indirect trading partners.
How to Identify your Location for DSCSA Requirements	Identifying your locations with a Global Location Number to share information related to Transaction Information (TI) and Transaction Statements (TS) and verify product information through a third-party routing system.
Progress on 2023 DSCSA Interoperability	Understanding the quality of barcodes to ensure scannability by your trading partners.
GS1 US Implementation Guideline for Pharmaceutical Chain of Custody	Capturing GS1 product identifiers when packing and shipping when working with 3rd party agents (CMOs, CPOs, and 3PLs).
GS1 US Pharmaceutical Conformance Test Program	Optimizing the data quality of your EPCIS serialized exchanges with the help of a certified third-party testing service.
GS1 US DataHub	Sharing, searching, and retrieving GLN information with your trading partners.



How to get started...

**Traceability
Plan**

**Foods on Food
Traceability
List**

**Each Key Data
Element (KDE)
at relevant
Critical
Tracking
Events (CTE)**

**Records
2-year
retention**

Traceability Plan



Procedures to maintain traceability records

A description of the procedures you use to maintain the records you are required to keep under this rule, including the format and location of these records.

Procedures to identify foods on the FTL

A description of the procedures you use to identify foods on the Food Traceability List that you manufacture, process, pack, or hold;

Description of how a TLC is assigned (if applicable)

A description of how you assign traceability lot codes to foods on the Food Traceability List, if applicable;

Point of Contact for traceability plan and records

A statement identifying a point of contact for questions regarding your traceability plan and records;

Farm map or location of each container (for aquaculture farms)

If you grow or raise a food on the Food Traceability List (other than eggs), a farm map showing the areas in which you grow or raise such foods.

Traceability Plan



FSMA 204 Requirement	Description	Examples to Apply GS1 Standards
Procedures to maintain traceability records	A description of the procedures you use to maintain the records you are required to keep under this rule, including the format and location of these records.	<p>CTEs-KDEs: Captured/Shared using ASNs, EPCIS, GDSN, GLN Data Model</p> <p>TLC: Encoded in Data Carrier</p> <p>An internal traceability system can collect/aggregate all this data daily.</p>
Procedures to identify foods on the FTL	A description of the procedures you use to identify foods on the Food Traceability List that you manufacture, process, pack, or hold;	Products in scope for FSMA 204 are identified using the GDSN local code value=FSMA 204 and published to trading partners using GDSN data pool provider.
Description of how a TLC is assigned (if applicable)	A description of how you assign traceability lot codes to foods on the Food Traceability List, if applicable;	GTIN and Lot Code can be used to represent a TLC. They can be encoded in GS1-128 barcodes (or other data carrier) labels, placed on cases when product is manufactured.
Point of Contact for traceability plan and records	A statement identifying a point of contact for questions regarding your traceability plan and records;	Name, Title, Phone, email, alternative contact
Farm map or location of each container (for aquaculture farms)	If you grow or raise a food on the Food Traceability List (other than eggs), a farm map showing the areas in which you grow or raise such foods.	Geographic coordinates can be captured/shared using GS1 GLN Data Model attributes, GS1 US Data Hub

Trading Partner Considerations



Option 1

Printed or Electronic
Bill of Lading and PTI
Label



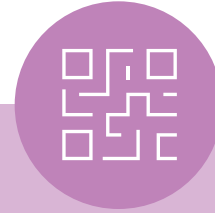
Option 2

Electronic Sortable
Spreadsheet



Option 3

EDI 856 Advanced
Ship Notice or EPCIS
Shipping Event



Option 4

GS1 Scan4Transport
QR Code which
includes all Shipping
KDEs



Option 5

Paper or digital
manifest, proof of
shipment

Solution Provider Conversations



Questions to ask of traceability technology service providers

For use by Retailers, Wholesalers and Product Suppliers

Questions

1. Company Name, URL, contact person
2. Please describe your food traceability solution for the food industry.
3. How does your technology solution address the requirements in FDA's Food Traceability Final Rule?
4. Which of the following components does your solution offer? (Check all that apply)
 - Formatting, storing GS1 Identification Numbers (e.g., Global Trade Item Numbers, Global Location Numbers, Serial Shipping Container Codes, Electronic Product Codes)

ROI

Information

- Accurate information drives sales
- Clean data saves time, money, and resources

Product

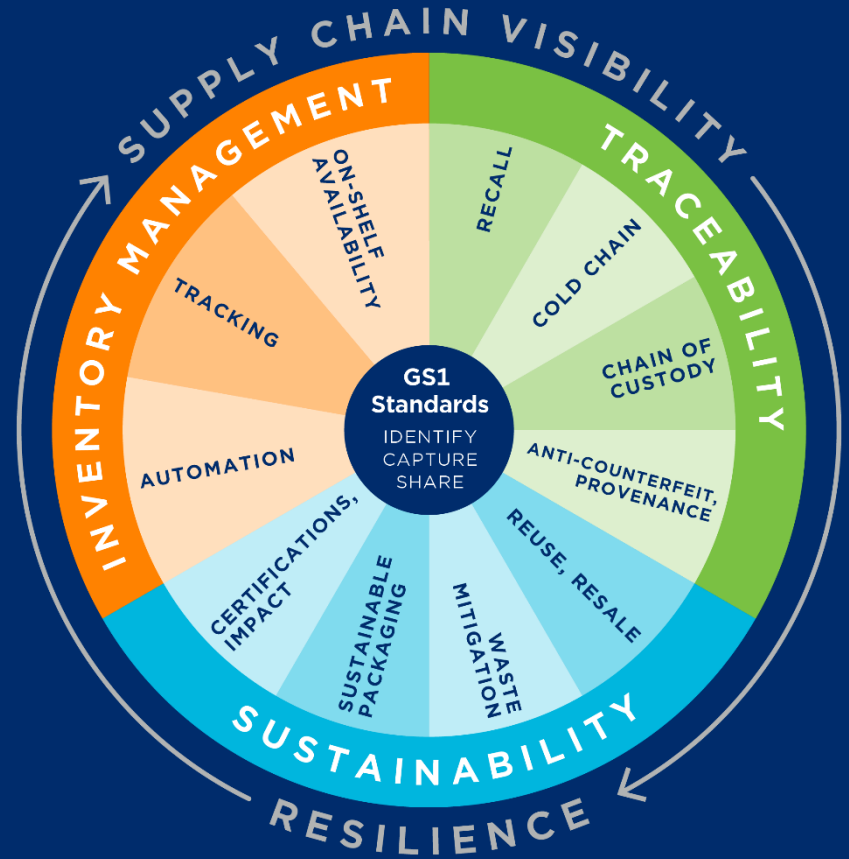
- Less product waste
- Ability to better identify affected lots for recall
- Better freshness management

Process

- Greater efficiency/transparency via automation

Consumer Engagement

- Brand loyalty
- Additional safety





Resources



FDA Food Traceability Tools and Resources

Food Traceability Rule: Critical Tracking Events (CTEs) and Key Data Elements (KDEs)


FDA U.S. FOOD & DRUG ADMINISTRATION

Harvesting Cooling (before Initial Packing) Initial Packing (RAC) First Land-Based Receiver **Shipping** Receiving Transformation Traceability Plan

Shipping KDEs (maintain and provide)
KDEs must be linked to the traceability lot for the food

- Traceability lot code for the food
- Quantity and unit of measure of the food
- Product description for the food
- Location description for the immediate subsequent recipient (other than a transporter) of the food
- Location description for the location from which you shipped the food
- Date you shipped the food
- Location description for the traceability lot code source or the traceability lot code source reference
- Reference document type and reference document number (maintain only)

*This section does not apply to the shipment of a food that occurs before the food is initially packed (if the food is a raw agricultural commodity not obtained from a fishing vessel).



FSMA Technical Assistance Network (TAN)

[f Share](#) [t Tweet](#) [in LinkedIn](#) [e Email](#) [p Print](#)

The Technical Assistance Network (TAN) is a central source of information for questions related to the FSMA rules, programs, and implementation strategies.

Frequently Asked Questions


The Technical Assistance Network staff has compiled answers to [frequently asked questions on FSMA](#). You may also use [FSMA Guidance Documents](#) to find answers to your questions.

Submit Your Question Electronically

Didn't find your question above?

For assistance with **human food** topics, [submit your question to the TAN](#).





**Food Safety Modernization Act
Resource Center**

[Twitter](#) [LinkedIn](#) [YouTube](#) [Instagram](#)

HOMERETAIL STORESDISTRIBUTION CENTERMANUFACTURINGIMPORTERTRANSPORTATION FLEETPRODUCE GROWERTRACEABILITY

Food Traceability

The following FSMA final rule may impact your company if you manufacture, process, pack, or hold foods that are listed on the Food Traceability List (FTL) or foods that contain listed foods as ingredients.

Food Traceability

Food Traceability Final Rule: [Requirements for Additional Traceability Records for Certain Foods](#) (*published November 15, 2022*)

Key Requirements: The FDA Food Traceability Final Rule establishes traceability recordkeeping requirements for persons who manufacture, process, pack, or hold foods included on the Food Traceability List (FTL) or foods that contain listed foods as ingredients.

Compliance Date: January 20, 2026

Food Traceability List: [Food Traceability List](#) (*November 15, 2022*)

FDA Related Resources:

- [FDA Traceability Resources Related to Food Traceability Final Rule](#)
- [FDA Frequently Asked Questions about the Food Traceability Final Rule](#)
- [FDA's New Era of Smarter Food Safety Blueprint](#)

FMI Final Rule Resources:



GS1 US Resources





The Global Language of Business



Culinary Collaborations LLC
A Powerful Traceability Program Trade in Global Data While Preparing for the Future

Challenge
Food safety is a constant goal for any food producer but it is becoming more difficult to achieve as the industry grows. The complexity of food supply chains, the variety of products, and the global nature of the industry make it difficult to ensure food safety. Culinary Collaborations LLC is a food producer that is committed to food safety and is looking for a solution to ensure food safety across its entire supply chain.

Solution
GS1 US GS1 Standards are the foundation for international supply chain interoperability. By using GS1 US GS1 Standards, Culinary Collaborations LLC can ensure that its products are traceable from farm to fork, ensuring food safety and quality. GS1 US GS1 Standards also enable Culinary Collaborations LLC to share data with its trading partners, improving transparency and efficiency.



The Global Language of Business

Gain Organizational Support

Launch Support and Resources Discovery

- ☐ Secure leadership buy-in and support.
- ☐ Assemble Task Force: RSC2 (responsible, accountable, consulted, informed).
- ☐ Map not processes, systems, and teams that capture FSMA 304 CTRs, RSCs.
- ☐ Develop a plan to implement the RSC2.

GS1 US FSMA 204 Readiness Checklist

Area	Checklist Item
Leadership	Communicate food regulatory deadline to leadership: Jan. 2024
Resources	Look at functions to review: Operations, Food Safety and Quality, Food Service, Manufacturing, Transportation, Account Managers, Master Data, RSC, Regulatory/Compliance, Legal, Finance, etc.
Capabilities	Identify critical data points and address gaps where new data needs to be captured or where data can be shared or operationalized.
Timeline	Align on common goals and deadlines

How To Apply GS1 Standard To Help Support FSMA 204 Requirements

Watch on YouTube



Next Steps



How to get started



Up next in series

- **August 23:** The What's Next: Preparing to Meet FSMA 204 Requirements - Tools and Resources
- **August 9:** The How: Industry Defined Guidance to Help Meet FSMA 204 Record Keeping Requirements: [Webinar recording](#)



Questions



EMAIL:

- foodsafety@gs1us.org



Trademark Notices

DataBar®, EPC®, EPCglobal®, GDSN®, GS1 Global Registry®, GTIN®, and Global Trade Item Number® are registered trademarks of GS1 AISBL.

GS1 US® and design is a registered trademark of GS1 US, Inc. Trademarks appearing in this presentation are owned by GS1 US, Inc. unless otherwise noted, and may not be used without the permission of GS1 US, Inc.

The letters “UPC” are used solely as an abbreviation for the “Universal Product Code” which is a product identification system. They do not refer to the UPC, which is a federally registered certification mark of the International Association of Plumbing and Mechanical Officials (IAPMO) to certify compliance with a Uniform Plumbing Code as authorized by IAPMO.

Disclaimers



Drug Supply Chain Security Act (DSCSA) Disclaimer

GS1 US is the local GS1 Member Organization that supports implementation of the GS1 System in the United States. GS1 US employees are not representatives or agents of the U.S. FDA, and the content herein has not been reviewed, approved, or authorized by the U.S. FDA.

GS1 Digital Link Disclaimer

GS1 US recommends that any organization developing an implementation designed to be in conformance with the GS1 Digital Link Specification should consult with their own counsel to determine the compliance of such an implementation with any relevant intellectual property or other rights of third parties.

CBD Industry/Hemp Products Disclaimer

Those engaged in a THC concentration of more than 0.3 percent on a dry weight basis and those engaged in flower touching cannabis business, even in full compliance with state laws unequivocally operate in violation of federal law. Marijuana is a controlled substance prohibited under federal law and violations could lead to civil and criminal penalties.