

Standards & Traceability. Tech for Nerds, Marketing Trend or a Safety Necessity?

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GS1 – Global Language of Business

Ο GS1 είναι ο παγκόσμιος οργανισμός διαχείρισης και ανάπτυξης προτύπων για την εφοδιαστική αλυσίδα.

Οδηγείται και διοικείται από τους χρήστες/μέλη του

Παγκόσμιος και τοπικός



Ουδέτερος και μη κερδοσκοπικός

Προάγει την συνεργασία και την ανάπτυξη

- 114 Οργανισμοί-Μέλη
 (ΜΗ κερδοσκοπικοί)
- > 3.000 εξειδικευμένο προσωπικό





GS1 standards got their start in CPG

On 26 June 1974, Sharon Buchanan was the first cashier to scan a GS1 barcode at a Marsh Supermarket in Troy, Ohio (U.S.). The item was a 10-pack of Wrigley's Juicy Fruit® gum.





Σύστημα Διεθνών Προτύπων GS!

Ένα Ολοκληρωμένο Σύστημα Διεθνών Προτύπων, που αποσκοπεί στη βελτιστοποίηση της εφοδιαστικής αλυσίδας, εκμεταλλευόμενο τα πλεονεκτήματα σύγχρονων τεχνολογιών.



Αναγνώριση

GS1 Identification Keys



Σήμανση

GS1 Barcodes GS1 EPC/RFID



Επικοινωνία

GS1 EDI GS1 GDSN GS1 EPCIS

Μια ΚΟΙΝΗ & ΔΙΕΘΝΗΣ γλώσσα για ΟΛΗ την εφοδιαστική αλυσίδα



- Αναπτύσσει, κατευθυνόμενος από τα μέλη/χρήστες του, παγκόσμια πρότυπα και λύσεις για την αποτελεσματικότερη λειτουργία της εφοδιαστικής αλυσίδας στο σύνολό της.
- Συνεργάζεται με διεθνείς οργανισμούς και φορείς





World Business Trends

TRACEABILITY



Each year 10% of world population

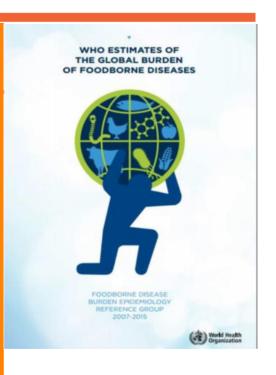
600 million people

become ill after eating contaminated food

Of these **420.000 people die**, including **125.000 children** under the age **5** according to WHO

\$55.5 billion/year







World Business Trends

SUSTAINABILITY

- Is a global mega trend that encompasses both environmental and social issues such as
 - ✓ reducing waste,
 - new ways of optimising the use of resources,
 - finding new opportunities to recycle and
 - reuse packaging and products at end of life,
 - and ensuring the fair trade of products.





World Business Trends

AUTOMATION & "SMART EVERYTHING"

- Everything that can be connected, will be connected.
- IoT technologies and devices along with high-bandwidth wireless communication and data transfer are all becoming cheaper. (3)
- Today, these technologies are making a huge impact in the automation of existing processes— estimated to save over \$1 trillion per year for asset operators.⁽⁴⁾
- Smart Factories, Smart Homes, Smart Cities, Smart Logistics, Smart Health etc.









Consumers want to know more information about the products they purchase than ever before.

10.4

is the number of sources the average shopper consults, double the number from 2016



More than 50% of consumers make purchase decisions before they even enter the retail store

Online CPG Sales Headed for 10 Percent, Food Processing, 22 February 2017



Consumers do not shop entirely online or offline. They shop wherever and whenever they want to shop.

76% of all consumer shopping begins online



Online CPG Sales Headed for 10 Percent, Food Processing, 22 February 2017

66% of millennials shop online weekly

84% of 35- to 54-year-olds shop online monthly

E-commerce: Build, Drive and Earn E-commerce Growth for Retail Success, IRi, January 2017



Global view of online CPG arowth



UK's online grocery market will grow by 48% by 2022 and account for 7.5% of the total UK grocery market



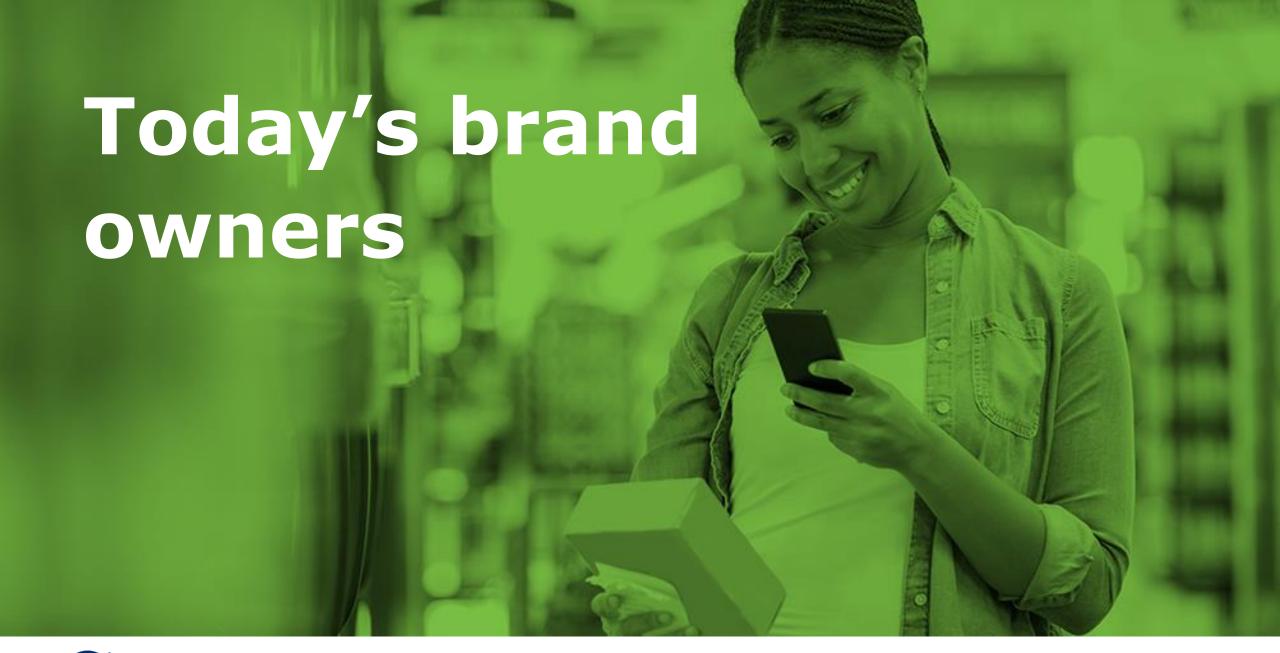
The U.S. online grocery market will grow by 129% by 2022 and account for 2% of the total U.S. grocery market



China's online grocery market will grow by 286% by 2022 and account for 11.1% of the total Chinese grocery market

The Online Store of the Future, IDG











GS1 standards are helping brand owners and retailers to meet the needs of consumers for trusted information about the products they purchase—no matter how or where they shop.













Physical identification

Digital identification



Food Traceability & Food Safety

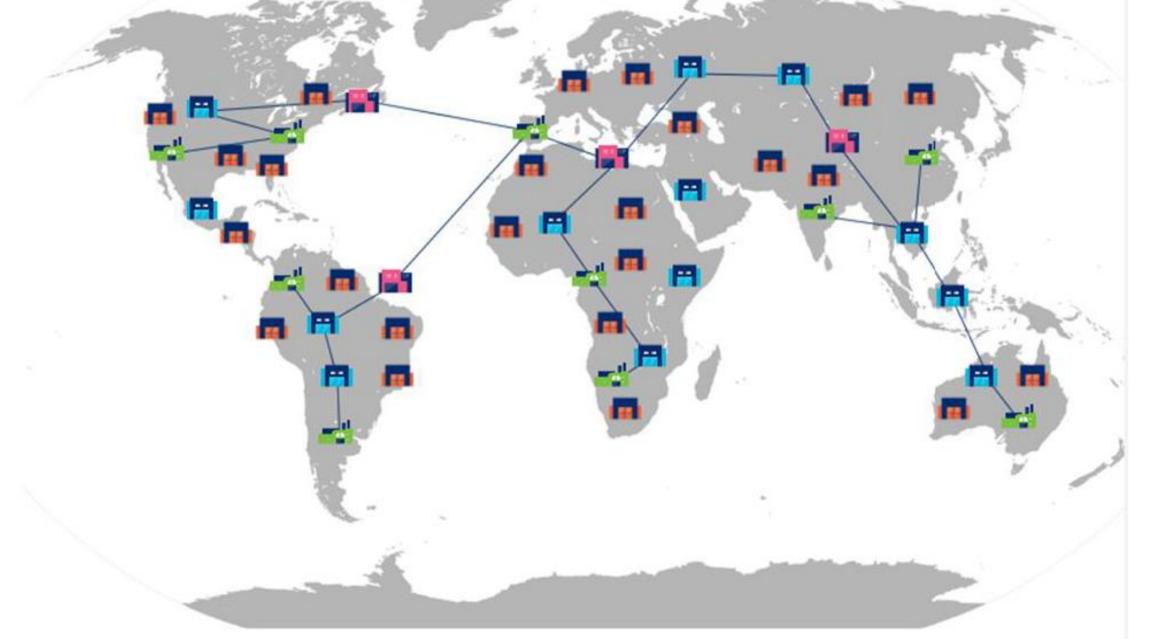
" Implementing a traceability system does not, in itself, ensure food safety;

It does allow a more rapid and efficient response to food safety problems, enabling quick identification of problem sources and their location in the supply chain." (*)

* Asian Development Bank Institute paper; Food safety & ICT Traceability systems



TRACEABILITY & RECALL CHALLENGE





1 TRUST

Contaminations, recalls and counterfeits change consumer perceptions and purchasing behaviours

Want safe, genuine products and trust information on products they buy



2 RELIABILITY

Industry needs to track, trace and authenticate their products/ components from their origin Want to make sure products they supply to consumers are safe



3 COMPLIANCE

Ensure safe environment for citizens through new regulatory requirements

Products sold to consumers **must be safe**

Products World of Data

Visibility Event Data

Producing, Shipping, Receiving...

Transaction Data

Orders,
Transactions....

Master Data

Ingredients, logistics data, packaging data Traceability Data









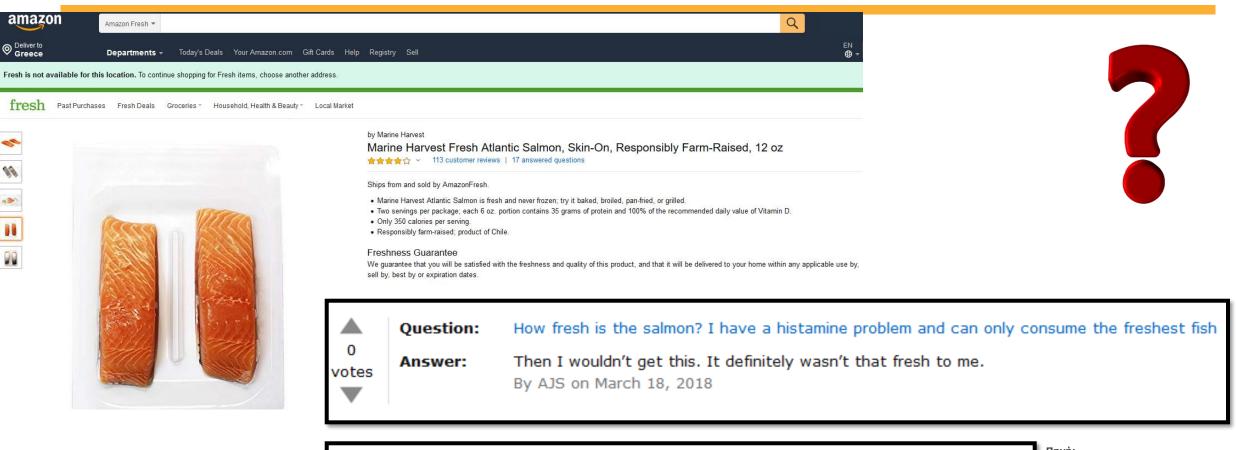
How fresh is the product?

Ouestion:

Answer:

votes







https://www.amazon.com/gp/product/B0732 ZP2HC/ref=pd_alm_hps_1_1_af_nereid?fpw =fresh&pd_rd_r=752f4ba9-9a97-4a6a-b8a5bff9ea77564c&pd_rd_w=zuMBp&pd_rd_wg= q3cw0&pd_rd_i=B0732ZP2HC&pf_rd_r=DJK XA3BCM7SEK29Z0EZQ&pf_rd_p=2be7bb20-8e19-44ad-b1bc-3587825c50b1

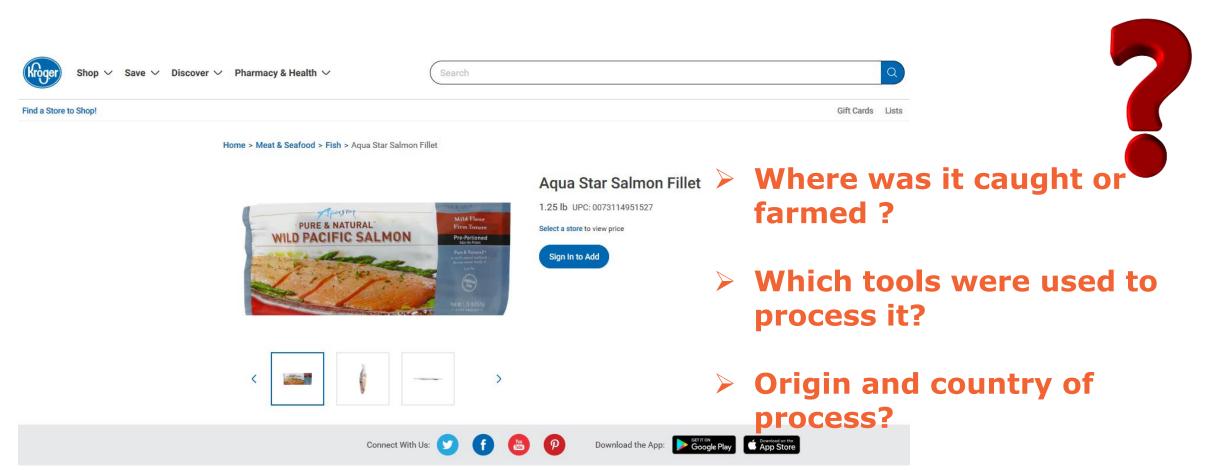
By Julia Hoff on December 5, 2018

I don't know, sorry. Good question! I'll have to check next time.

Do they use antibiotics?

Origin of the product?



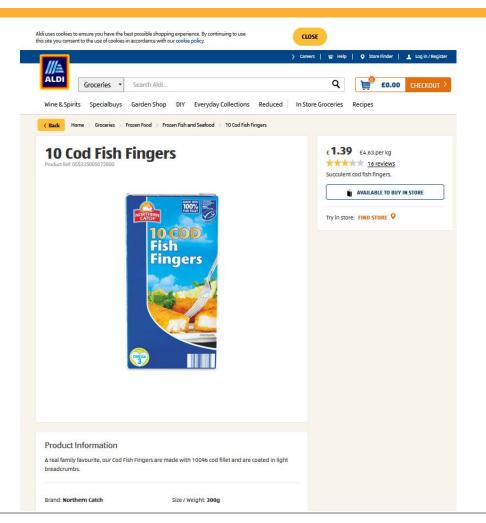


Πηγή: https://www.kroger.com/p/aqua-star-salmon-fillet/0073114951527



Is it safe to consume it?







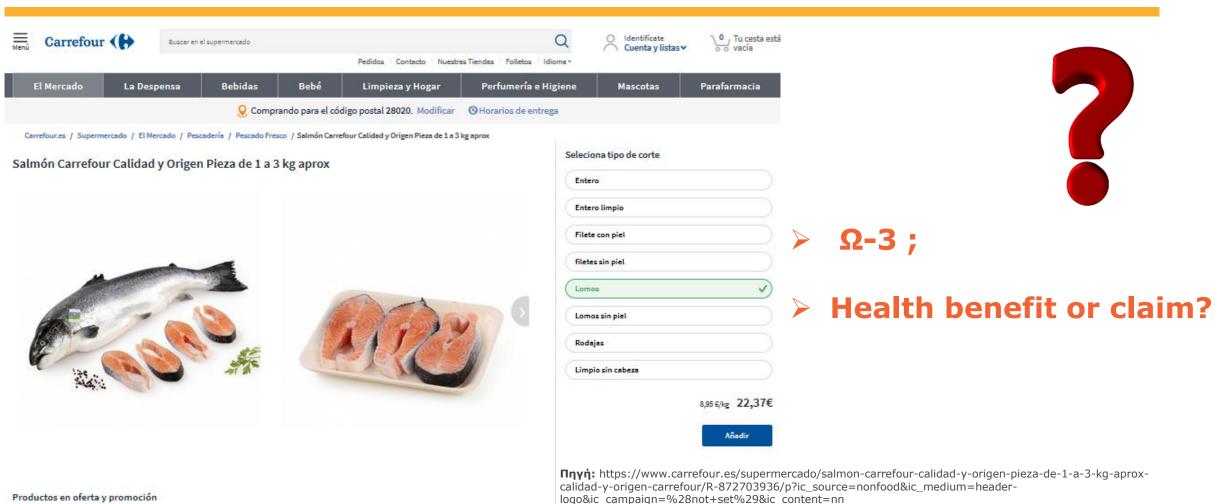
- > Allergens?
- > Ingredients?

Πηγή: https://www.aldi.co.uk/10-cod-fish-fingers/p/055335005072800



How good is it for my health;











GS1 EPCIS



EPCIS (Electronic Product Code Information System): Πρότυπο μοντέλο διασύνδεσης δεδομένων για τη συλλογή και διανομή πληροφοριών συμβάντων εφοδιαστικής αλυσίδας

- Το Πρότυπο GS1 EPCIS επιτρέπει στις επιχειρήσεις να συλλέγουν και να ανταλλάσσουν πληροφορίες για την αλυσίδα εφοδιασμού σχετικά με την κυκλοφορία και την κατάσταση των αγαθών, τόσο εντός της επιχείρησής τους όσο και με τους επιχειρηματικούς εταίρους τους.
- Το Πρότυπο GS1 EPCIS έχει εγκριθεί ως πρότυπο και από το Διεθνή Οργανισμό ISO (ISO/IEC 19987:2015).
- Απαντάει, με ηλεκτρονικό τρόπο, σε 4 βασικές διαστάσεις ενός γεγονότος της εφοδιαστικής αλυσίδας ενός προϊόντος.



GS1 EPCIS Γεγονότα & Διαστάσεις



п	T	O	7
	6-3		

Περιγράφει τα εμπλεκόμενα μέρη της διαδικασίας (Business Parties) – Δεν αποτελεί βασική διάσταση του EPCIS

TI

Ποιο προϊόν/κιβώτιο/φορτίο συμμετείχε στη διαδικασία;

ПОТЕ

Σε ποιο ακριβές διάστημα (Ημ/νία και ώρα) πραγματοποιήθηκε και έληξε το γεγονός;

ПОҮ

Σε ποιο ακριβές σημείο (φυσική ή λειτουργική θέση) συνέβη το γεγονός;

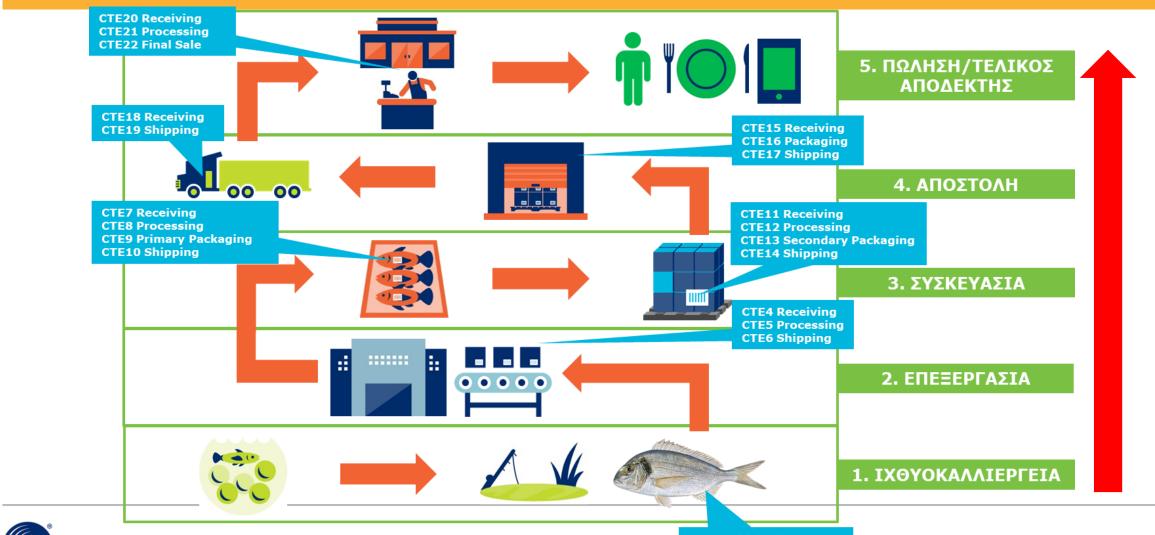
ΓΙΑΤΙ

Ποια ήταν η ακριβής αιτία πραγματοποίησης της ενέργειας;



Example of Critical Tracking Events in Supply Chain







Example of F-Trace



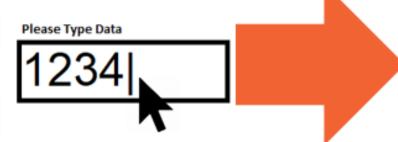
https://www.ftrace.com/en/gb











PRODUCT INFORMATION

GTIN / EAN:	04260278110016				
Lot No.:	kut999				
Product type:	Saithe(=Pollock) (Pollachius virens)				
Production method:	Aquaculture				
Catch area:	FAO 27.2 - Norwegian Sea, Spitzbergen, and Bear Island (Subarea II)				
Catch methods:	Pair trawls				
Catch date:	01.12.2014				
Vessel:	Antares (SAS211)				
Unloading port:	Cuxhaven				
Processing parties:	Kuhlmann GmbH, Meißen, Deutschland Kutterfisch-Zentrale GmbH, Cuxhaven, Deutschland				
Manufacturing date:	18.12.2014 08.10.2014				
Best-by date:	31.10.2014				

PACKAGING AND CONTENT



(Sample Package)



Πρότυπα GS1 & Εφοδιαστική Αλυσίδα Τροφίμων









Διαλειτουργικότητα Μεταξύ Διαφορετικών Συστημάτων Δομημένες και Μοναδικές Πληροφορίες

Πλήρη Και Αξιόπιστα Δεδομένα Ιχνηλασιμότητας



Master Data

Master Data:

- Brand (GS1 Κωδικοί GTIN, Όνομα, περιγραφή, Target Market κλπ.)
- Marketing (μηνύματα, επισημάνσεις κλπ.)
- Συσκευασία (τύπος, διαστάσεις κλπ.)
- Χαρακτηριστικά Προϊόντων (Προωθητικές ενέργειες, οδηγίες χρήσης, target ages κλπ.)
- Τιμές, Εκπτώσεις, Φορολογική Επιβάρυνση κλπ.
- Διατροφική αξία, συστατικά κ.α
- Είδος GS1 Barcode επί των συσκευασιών & άλλες ειδικές σημάνσεις
- Προωθητικές πληροφορίες
- Οδηγίες Μεταφοράς και Αποθήκευσης





Global Data Synchronization Network







GDSN: Στατιστικά Στοιχεία



To GDSN σἡμερα*:



Περισσότεροι από 25.000.000 κωδικοί προϊόντων καταχωρημένοι στο Global Registry

Περισσότερες από 45.000 επιχειρήσεις – χρήστες

*Στοιχεία Ιανουάριος 2016









- Το ελληνικό Data Pool
- Δημιουργήθηκε από τον GS1 Association Greece
- GDSN Certified Platform
- Πεδία για την εναρμόνιση με τον ΕΚ 1169/2011
- Δωρεάν Υπηρεσία





Για περισσότερες πληροφορίες:

www.hellasync.org



Ενδεικτικοί χρήστες/Λιανέμποροι USA















































Απαιτήσεις Λιανέμπορων



Why am I receiving this communication?

The Kroger Co. is rapidly approaching a milestone in our efforts to re-engineer several of our internal systems and processes to support a full conversion to GDS (Global Data Synchronization). One of the key components of this conversion requires that all suppliers be GTIN (Global Trade Item Number) compliant.

We feel that it is necessary to ensure we do not have any disruption within our pricing, merchandising or supply chain systems. We do not want to put ourselves into a situation where we are unable to receive item data, inventory, contracts, etc from our valued suppliers due to a GTIN compliance issue.

What is a GTIN? Why is Kroger converting to the GTIN-14 to identify items? Why not continue to use UPC's (GTIN-12) and EAN's (GTIN-13)?

GTIN stands for Global Trade Item Number. For example, a 12-digit GTIN is encoded into a U.P.C. barcode.

In addition to being the global standard for use in databases, the GTIN-14 can represent any GTIN-12 (UPC) or GTIN-13(EAN) and the various packaging levels such as case, pallet, etc.

GTINs are stored in databases/applications as 14-digits by right justifying and zero-filling left

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
GTIN-14	X	X	X	X	X	X	x	X	X	X	X	X	X	X
GTIN-13	0	X	X	X	X	X	X	X	X	X	X	X	X	Х
GTIN-12	0	0	X	X	X	X	X	X	X	X	X	X	X	X
GTIN-8	0	0	0	0	0	0	X	X	X	X	X	X	X	X

GTIN-14's are the GS1 standard for use in databases and are required to synchronize item information through GDSN (Global Data Synchronization Network) data pools.

data synchronization and EDI)



Απαιτήσεις Λιανέμπορων



Corporate Offices 11840 Valley View Road Eden Prairie, MN

Dear Vendor Partner:

SUPERVALU has been synchronizing item data via the Global Data Synchronization Network® (GDSN®) with our Vendor Partners for over seven years. As a result, over 700 Vendor Partners, including competitors of yours, benefit from a more efficient and cost-effective relationship with SUPERVALU.

We expect all of our suppliers to join us in this important industry initiative to drive efficiencies across the entire supply chain. By implementing these GS1 Global Standards you will be able to leverage your investment across dozens of US based retailers who are implementing GDSN®.

SUPERVALU has chosen 1SYNC as our GDSN Certified Data Pool. To learn more about getting started synchronizing data with SUPERVALU visit http://www.1sync.org/supervalu.html. Once you are ready to begin syncing with us contact <u>DataSync@SUPERVALU.com</u>, with the completed the Trading Partner Data Sheet.

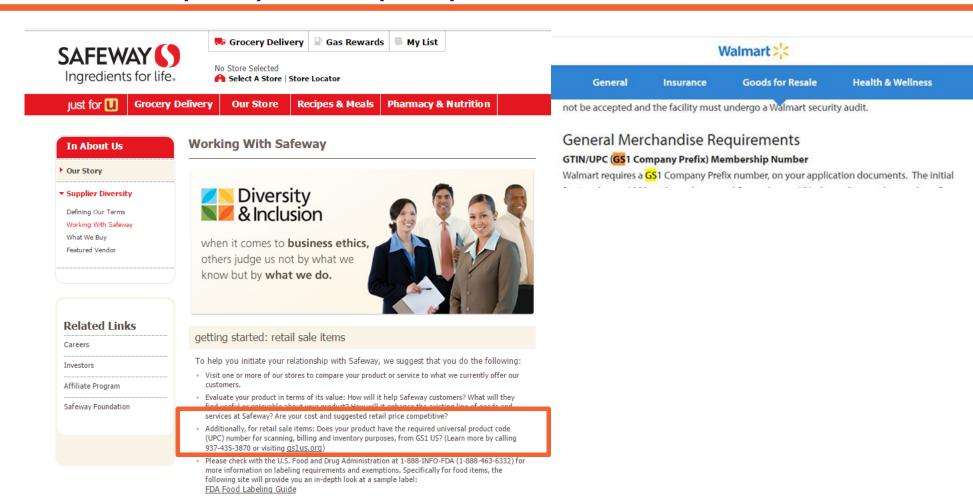
Synchronizing accurate item data is an integral part of supply chain business processes across the globe. We thank you in advance for executing against this important initiative.

Sincerely,

Janel Haugarth Executive Vice President, President/COO Supply Chain Services SUPERVALU INC.



Απαιτήσεις Λιανέμπορων





Ενδεικτικοί χρήστες Παγκοσμίως

























METRO























My market



















Provide trusted product information via unique, persistent identification and accurate, complete data



Deliver supply chain efficiencies and support agility and responsiveness



Generate higher quality data at a lower overall cost and improve the shopping experience for consumers

The Global Language of Business





GS1 Association Greece

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