

Traceability in the Food Supply Chain

A Hyperledger Fabric Solution

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| GROWER/SUPPLIER | | |
| Field | Description | Format |
| GTIN | Global Trade Item Number | 9504000059378 |
| LOT | Batch/Lot Number |  |
| DATETIME | Date and Time Stamp |  |
| GLN\_FARM | Global Location Number (physical location of farm) | 9504000059361 |
| * Global Trade Item Numbers + Lot Numbers are used to identify raw produce. * Global Serial Shipping Container Codes are used for products distributed from the farms with batch/lot information. * Each physical location is identified with a Global Location Number. | | |

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| MANUFACTURER | | |
| INPUT | | |
| Field | Description | Format |
| GTIN | Global Trade Item Number of Raw Materials | 9504000059378 |
| DATETIME\_RECEIVED | Date and Time Shipment Received |  |
| GLN\_FACTORY | Global Location Number of Factory |  |
| OUTPUT | | |
| SSCC | Serial Shipping Container Code |  |
| DATETIME\_PRODUCED | Date and Time Product Produced |  |
| DATETIME\_PACKED | Date Product Packed |  |
| * Internal traceability is maintained in the key processes: receiving, transformation of raw materials to semi-finished or finished goods, storage and distribution. * GTINs and production data (batch/lot & expiry date) are printed on products to be despatched. * Links between goods received and despatch of final product are always maintained through the GTINs and batch/lot numbers. | | |

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| WAREHOUSE | | |
| INPUT | | |
| Field | Description | Format |
| SSCC | Serial Shipping Container Code | 095060001111000017 |
| GLN | Global Location Number of Warehouse | 9506000111247 |
| DATETIME\_RECEIVED | Date and Time Received |  |
| OUTPUT | | |
| SSCC | Serial Shipping Container Code | 095060001112000016 |
| GLN | Global Location Number of Warehouse | 9506000111247 |
| DATETIME\_SHIPPED | Date and Time Shipped |  |
| * Internal traceability is maintained in the processes of receiving, storage and distribution. * Global Trade Item Numbers + batch/lot or expiry date is used to assure accuracy of products when aggregated and disaggregated. These cases are linked and tracked with a pallet using the Serial Shipping Container Code. * Despatch Advice containing Global Trade Item Numbers, Serial Shipping Container Code and Global Location Numbers are sent to customers. | | |

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| RETAILER | | |
| INPUT | | |
| Field | Description | Format |
| GTIN | Global Trade Item Number of Carton/Case |  |
| GLN | Global Location Number of Retail Store |  |
| DATETIME\_RECEIVED | Date and Time Received |  |
| OUTPUT | | |
| GTIN | Global Trade Item Number of Carton/Case |  |
| DATETIME\_UNPACKED | Date and Time Unpacked and put on Shelves |  |
| DATETIME\_SOLD | Date + Time Sold to Customer |  |
| * Retailers provide product information to their customers at Point of Sale. * Master data and event data (for traceability purposes) can be provided to consumers on product labels or through scanning of barcodes. | | |