Joint Logistics Command
Bar-coding Project Phase 2
Barcode and Packaging
Technical Handbook

JLC Supply Chain Branch
Business Improvement and Performance
Version 1.2

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Document history

Document Control

The original of this document will be held with the Joint Logistics Command (JLC) Supply Chain Branch (SCB) Automatic Identification Technology (AIT) desk officer. All updates will be co-ordinated through the AIT desk officer.

The latest version of the handbook will be available from the JLC – Supply Chain Branch Business Improvement and Performance Directorate.

Updates to this document will be in the form of a complete reissue to stakeholders and will be identifiable by numerical updates to the current version.

Revision History

The following updates have been made to this document:

Version	Revision Date	Summary of Changes	Name
0.1	18 May 12	1st Draft Version	Mr D Edwards
0.2	2 Aug 12	2nd Draft Version	Mr D Tymms
0.3	2 Aug 12	3rd Draft Version	Mr D Tymms
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0.6	13 Aug 12	6th Draft Version (with C'wlth changes)	Mr D Tymms
0.7	17 Sep 12	7th Draft Version (with C'wlth changes)	Mr D Tymms
0.8	1 Oct 12	8th Draft Version (with WGCDR Cook changes)	Mr D Tymms
1.0	12 Oct 12	Initial Version for release	Mr D Tymms
1.1	24 Jun 13	Update location and sponsor details	Mr D Tymms

Distribution

This document has been distributed to:

Name	Title	Date of Issue
Mr D Edwards	JLC – SCB – DSCS - SO2 Project Officer	12 Oct 12
WGCDR J Cook	JLC – SCB – DSCS -DDBM&D	12 Oct 12
LCDR N Carlisle	JLC – SLB	12 Oct 12
Mr L Cailes	JLC - DLTP	12 Oct 12
All DMO SPOs	DMO- Procurement staff	12 Oct 12 – 14 Jun 13

General

Purpose

The primary purpose of this handbook is to document the technical detail necessary to produce a Defence standard barcode label and affixing to correctly packaged Defence inventory.

Scope

This document provides key knowledge and information regarding the technical and physical requirements for the bar-coding and packaging of Defence inventory.

Intended Audience

The intended audience for use of this document is JLC and DMO purchasing officers. This document can also be used as a reference guide for Defence suppliers**.**

Relationship with other Documents - References

This technical handbook is supported by the following documents:

A. DI(G) LOG 4-1-003 Defence Inventory and Asset Management dated 8 May 2001
B. DEFLOGMAN Part 2 Volume 5 Chapter 8 Automatic Identification Technology dated 8 Jul 2011
C. DEF(AUST) 1000C, Defence Packaging Standards, Part 5, Marking of Packages
D. DEF(AUST) 1000C, Defence Packaging Standards, Part 12, AIT Labelling and Marking
E. DEF(AUST) 1000C, Defence Packaging Standards, Part 2, Packaging Requirements
F. DEF(AUST) 1000C, Defence Packaging Standards, Part 15, Packaging Specifications
G. DEF(AUST) 1000C, Defence Packaging Standards, Part 6, Packaging of Dangerous Goods
H. DEF(AUST) 1000C, Defence Packaging Standards, Part 7, Packaging of Materiel Susceptible to Damage by Electrostatic Discharge
I. DEF(AUST) 1000C, Defence Packaging Standards, Part 8, Defective Packaging Reporting System
J. Technical Regulatory of ADF Materiel Manual – Land, of 01 December 2009
K. Electronic Supply Chain Manual (ESCM) – JLC Supplement

Acronyms & Abbreviations

Acronym / Abbreviation	Description
ADC	Automatic Date Capture
ADF	Australian Defence Force
AIT	Automatic Identification Technology
AI	Application Identifier
AUSDEFCON	Australian Defence Contract
BAE	British Aerospace Pty Ltd
DIDS	Defence Integrated Distribution System
DMO	Defence Material Organisation
ECC	Electronic Correction Capability
DTP	Defence Transaction Processor
GS1	Global Standards
HRI	Human Readable Interface
JLC	Joint Logistics Command
JLU	Joint Logistics Unit
K-Label	Kimdura Indoor Label
LOT	Life of Type
MILIS	Military Integrated Logistics Information System
NSN	NATO Stock Number
OD-Label	Outdoor Label
SERCO	SERCO Pty Ltd
SCB	Supply Chain Branch
SME	Subject Matter Expert
SPO	System Program Office
T-Label	Tyre Label
WOD-Label	Waterproof Outdoor Label
V-Tag	Valeron Tag

Project Summary

Background

Bar-coding inventory is a key enabler to improved business processes and procedures and to maximise productivity gains and savings benefits in the Defence logistics system. Targeted introduction of bar-coding, and other forms of AIT, is required for modernising Defence inventory management, enhancing visibility and improving inventory accuracy.

The Bar-coding Project was broken into two Phases. In Apr 10 the Bar-coding Project Phase One developed a barcode structure and progressively bar-coded the current Defence inventory within JLC Joint Logistic Units (JLUs) to achieve gains in the supply chain and improved inventory accuracy. This phase of the Project was completed in Mar 12 including the successful development of a suite of Defence barcode labels in accordance with DEF(AUST)1000C and affixing to all Defence inventory within each JLU.

Under the JLC Supply Chain Branch (SCB) support contracts, contractors are required to barcode stock on receipt and issue. All items leaving a JLU now have a Defence readable barcode attached that enables the current Defence AIT capability to scan into the corporate inventory management system (MILIS). With the ADC to Units Project being conducted over the next two years ADF units will be given the AIT capability to read barcode items on receipt and generate barcodes for issue.

Suppliers of Defence inventory are not currently consistently labelling Defence procured inventory with a Defence standard barcode on their products. In order to maintain the standard of barcoded inventory within Defence, stock from suppliers is barcoded on receipt at a cost per receipt transaction, through JLC Logistic Units, or labour hours at ADF Units.

DMO, as the acquisition agency of inventory for Defence, is a signatory to DEF(AUST)1000C and is directed under DI(G) LOG 4-1-003 to ensure the acquisition of assets and inventory from OEMs and suppliers have compliant AIT labelling and marking. As stated in reference B:

> "The DMO is responsible for reporting:
>
> a. The acquisition of assets and inventory with OEM and supplier non-compliant AIT labelling and marking to the Materiel Logistic Council and the Defence Logistic Committee prior to acquisition.
> b. Projects implementing non-compliant AIDC systems to the Materiel Logistic Council and the Defence Logistic Committee prior to introduction into service."

This is further reinforced in ASDEFCON templates which states:

> "Note to drafters: Consideration should be given to making the following clause more specific, in that the specific section(s) of DEF(AUST)1000C should be referenced for differing types of deliverable items.

> Para 9.5.3 Unless otherwise agreed in writing by the Commonwealth Representative, the Packaging and packaging materials used by the Contractor for the packaging of Stock Items and other Items that are to be delivered to the Commonwealth shall comply with DEF(AUST)1000C."

The DMO SP020 template also makes reference to packaging stating:

> "Procurement officers may attach Special Conditions to the Purchase Order. Special Conditions often relate to matters such as specific packaging requirements, the shelf life of the goods being purchased or special delivery instructions."

Although some suppliers may comply with components of DEF(AUST)1000C, Defence requirements for bar-coding and packaging of supplier items are currently not adequately understood or enforced. DEF(AUST)1000C is broken into 20 separate individual Parts. This Technical Handbook primarily will refer to the following four Parts:

Part 2: Packaging Requirements. Broken into six Sections as follows:

A. General Packaging Definitions
B. Service Requirements – type of packaging required, primary pack quantities
C. Levels of Packaging – pack types A, B, and C, Commercial Pack and Trade Pack
D. Requirements for Premises (Warehouses) – What type of packaging materiel to be used, transport and handling requirements prior to packaging.
E. Packaging of Instruments and Delicate Items.
F. Specialised Packaging requirements.

Part 5: Marking of Packages. Summarised in DEF(AUST)1000C Part 5 Section A, Annex A, Appendix 1: Theoretical Division of a Container for the location of general purpose markings.

Part 12: Automatic Identification Technology Labelling and Marking. Details the Technical Specification of a barcode including, the types of bar-codes, clear/quiet zones around bar-codes, label reflections and type of paper resistance.

Part 15: Packaging Specifications. Details the approved packaging containers and the actual specifications of cardboard to be used i.e. flute size, compression resistance, bursting strength and water resistance.

In Dec 11, SCB worked with DMO Soldier Modernisation SPO and their supplier Craig International Ballistics to tailor a barcode label for ballistic body armour plates that met DEF(AUST)1000C and aligned with Defence bar-coding conducted under Phase One of the Bar-coding Project. The supplier was provided with SME advice from SCB staff and successfully developed a barcode, including both linear and 2D barcodes at no extra cost to Defence, to affix onto the next production batch of ballistic plates. This example demonstrated that Defence suppliers are capable and willing to work with DMO agencies to enable efficient use of AITs. This has lead to the Bar-coding Project Phase Two and the need to develop this Handbook.

In summary, the intent of the Bar-coding Project Phase Two is to get items of supply delivered to Defence to be labelled and packaged IAW DEF(AUST)1000C. This will eliminate costly rework and allow for further efficiency gains to be realised in regards the use of AITs. Intent is as at Oct 13 within JLC, under the new DIDS contract, any items from suppliers that do not

meet Defence labelling and packaging standards will be refused and turned away unless rework packaging and labelling payment arrangements have been made between DMO and JLC.

To support the Bar-coding Project Phase Two this Technical Handbook has been developed to assist the Defence procurement community and suppliers with the technical and physical requirements for bar-coding and packaging as detailed in DEF(AUST)1000C.

Overview of Technical Handbook

This Technical Handbook is broken into three parts:

Part 1: Label Technical Specifications. Detailing the technical data extraction requirements, label text and technical attributes for linear and two dimensional (2D) barcodes.

Part 2: Label Physical Aspects. Detailing label types, colours and placement location.

Part 3: Packaging Requirements. Outlining the various packaging options to be considered.

The detailed technical requirements in this Handbook conform to Defence's extant standards and publications, specifically references A-F.

Document Purpose

The purpose of this Technical Handbook is to document the technical detail necessary for the DMO and JLC procurement staff to inform suppliers how to produce barcode labels with information appropriately:

a. extracted from MILIS;
b. encoded into the appropriate linear and two-dimensional bar codes;
c. printed onto the appropriate label/s; and
d. placed in the correct location of a correctly packaged item.

This Technical Handbook provides DMO and JLC procurement staff a checklist to ascertain the relevant packaging standards required for each item.

This Technical Handbook also provides DMO and JLC procurement staff adequate information extracted from DEF(AUST) 1000C to insert into ASDEFCON and SP020 procurement templates.

Part 1: Bar-coding Technical Detail

Part 1 outlines the key AIT marking and labelling technical information that is contained in DEF(AUST)1000C Part 12, reference C. This information is required to enable barcode labelling software to create a MILIS readable label as shown in Figure 1 below.

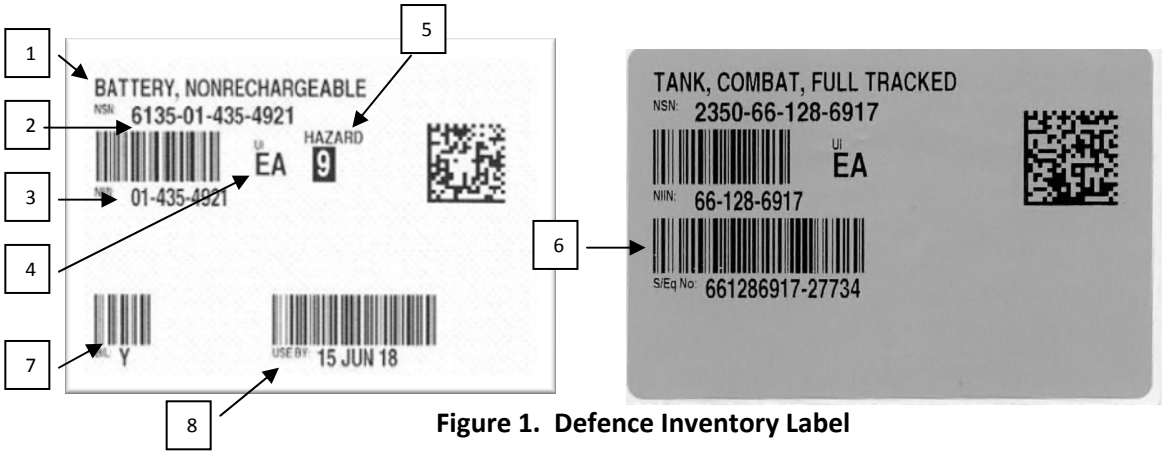


Figure 1. Defence Inventory Label

MILIS Data

DMO procurement staff will be required to extract MILIS data from the relevant MILIS tables and fields to ensure the correct markings are included on the barcode label. The MILIS data required to be included as content on barcode labels (text and/or barcodes) is listed in Table 1 below and cross referenced to Figure 1. This information will be required to be passed to the supplier for inclusion on the barcode label.

Figure 1 Reference	Table	Field	Type	Length	Comment
1	MSF100	ITEM_NAME	CHAR	40	Text can be wrapped
2	MSF100	GROUP_CODE	CHAR	2	NSN = MSF100.GROUP_CODE+ MSF100.CLASS_CODE + MSF100.STOCK_CODE
	MSF100	CLASS_CODE	CHAR	2	
3	MSF100	STOCK_CODE	CHAR	9	NIIN
4	MSF100	UNIT_OF_ISSUE	CHAR	4	Unit of Issue
5	MSF100	HAZARD_MAT	CHAR	4	Hazardous Material Code
6	MSF1ET	EQUIP_NO	CHAR	12	Equipment Number
6	MSF1ST	TRACK_REF_NO	CHAR	30	Serial Tracking Reference Number
6	MSF600	PLANT_NO	CHAR	30	Equipment Number
7	MSF1HD	BATCH_LOT_NO	CHAR	10	Batch Lot Number
8	MSF1HD	USE_BY_DATE	CHAR	8	Use By Date

Table 1 – MILIS data to be included as content on labels

The content of the label will be determined if an item is equipment or serial tracked, has a batch lot number or a shelf life. MILIS data required to determine this label content is listed in Table 2 below. The respective MILIS tables (MSF100) will need to be checked for relevance for inclusion of data on the barcode label as required.

Table	Field	Type	Length	Comment
MSF100	TRACKING_IND	CHAR	1	Tracking Indicator "E" indicates an Equipment Number exists "S" indicates a Serial Number exists
MSF100	BATCH_LOT_MGT_IND	CHAR	1	"Y" indicates batch lot managed
MSF100	SHELF_LIFE	DEC	3	Indicates the stock has a shelf life (in months)

Table 2 – MILIS Data necessary to determine label content

Label Text

Having obtained the MILIS data the required label text format, font and position are described in Table 3 below with the Figure 1 position cross referenced number.

Field	Attribute	Detail
Item Name	Mandatory	Yes
	Data Source	MSF100.ITEM_NAME
	Format	Unchanged from data source, may be truncated to fit within the margins of the label
	Label	None
	Font and size	Height 14 pt Width 10 pt EFF Swiss Bold (TrueType Scalable)
	Position	Top left corner of label **(1)**
NSN	Mandatory	Yes
	Data Source	SUBSTR(MSF100.CATEG_ID,1,4) + MSF100.STOCK_CODE
	Format	"####-##-###-####"
	Label	"NSN: "
	Font and size	Height 14 pt Width 12 pt EFF Swiss Bold (TrueType Scalable)
	Position	Below Item Name **(2)**
Unit Of Issue	Mandatory	Yes
	Data Source	MSF100.UNIT_OF_ISSUE
	Format	Unchanged from data source
	Label	"UI "
	Font and size	Height 18 pt Width 14 pt EFF Swiss Bold (TrueType Scalable
	Position	Refer to the examples at Annex A and B. Figure 1 **(4)**
Hazardous Material Code	Mandatory	Only when a value exists in the data extract ie. MSF100.HAZARD_MAT <> ""
	Data Source	MSF100.HAZARD_MAT
	Format	Unchanged from data source
	Label	Refer to the examples
	Font and size	Height 20 pt Width 14 pt EFF Swiss Bold (TrueType Scalable)
	Position	Refer to the examples at Annex A and B. Figure 1**(5)**

Table 3 – Label Text

Linear Bar Codes

There are numerous linear barcode symbology (font type/code) used to create barcodes. To enable MILIS to be able to read the linear bar code on scanning and input the data into the appropriate MILIS or DTP field, the Defence symbology used is ***Code 128.***

On each inventory label there shall be a minimum of one linear barcode (that being the NIIN when an item is not serial tracked or does not have a batch lot or use by date). There can be up to a maximum of four linear barcodes on an inventory label:

a. NIIN,
b. Serial Number or Equipment Number,
c. Batch Lot, and
d. Use by Date.

The potential combinations of linear barcodes are show in Table 4 below.

Inventory Type	Linear Bar Codes Required
Quantity Tracked	NIIN
Serial Number Tracked	NIIN + Serial Number
Equipment Number Tracked	NIIN + Equip Number
Batch Lot Managed	NIIN + Batch Lot
Use By Date Managed	NIIN + Use By Date
Batch Lot + Use By Date Managed	NIIN + Batch Lot + Use By Date
Serial Tracked + Batch Lot Managed	NIIN + Serial Number + Batch Lot
Serial Tracked + Use By Date Managed	NIIN + Serial Number + Use By Date
Serial Tracked + Batch + Use By Date Managed	NIIN + Serial Number + Batch Lot + Use By Date
Equip Tracked + Batch Lot Managed	NIIN + Equip Number + Batch Lot
Equip Tracked + Use By Date Managed	NIIN + Equip Number + Use By Date
Equip Tracked + Batch + Use By Date Managed	NIIN + Equip Number + Batch Lot + Use By Date

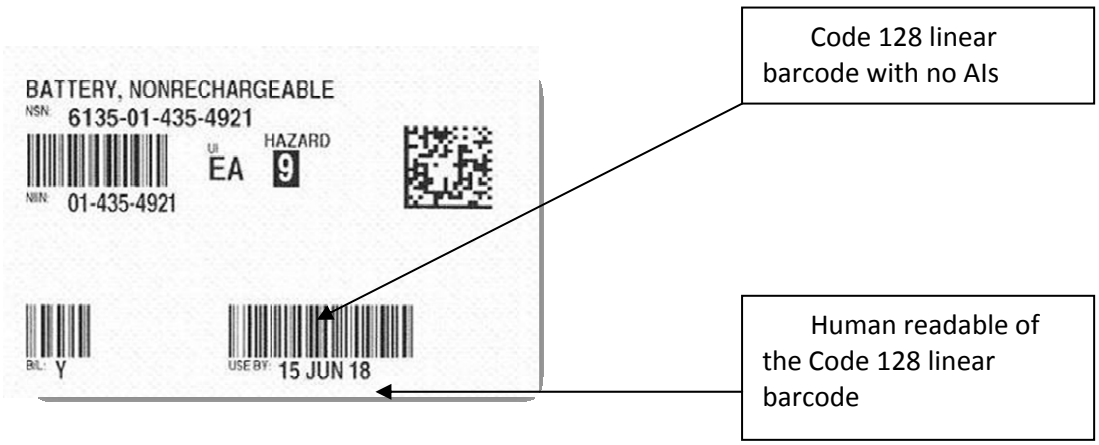
Table 4 - Linear Bar Code Combinations

Tailored Barcode Labels

The location of the linear barcodes on the label may change, however the sequence of the bar codes shall be as shown in Table 4 above. Location of the linear barcode may change due to size of the item, manufacturing requirements or packaging requirements. A label not in the format as shown in Figure 1 is known as a Tailored Barcode inventory label. An example is shown in Figure 2 below.

Figure 2. Tailored Barcode Inventory Label

Each data element shall be encoded as 'plain text' into each respective barcode is detailed in Table 5 below. Note in the linear code 128 format no GS1 Application Identifiers (AIs) are used. AIs are shown as numbers in brackets prior to a numeric item description number. Under each linear barcode there will be a Human Readable Interpretation (HRI) description in the format as detailed in Table 5.



Bar Code	Attribute	Detail
NIIN	Mandatory	Yes
	Data Source	MSF100.STOCK_CODE
	Data Format (Source)	9 numeric characters (fixed)
	Encoded Data Format	As extracted from MILIS (no change from source with no hyphens between numbers).
	HRI Label	"NIIN: "
	HRI Format	"##-###-####"
	HRI Location	Below bar code **(3)**
Serial Number	Mandatory	Only when MSF100.TRACKING_IND = "S"
	Data Source	MSF1ST.TRACK_REF_NO
	Data Format (Source)	Up to 30 characters (alphanumeric and non-alphanumeric)
	Encoded Data Format	As extracted from MILIS (no change from source)
	HRI Label	"S/Eq No: "
	HRI Format	As extracted from MILIS (no change from source)
	HRI Location	Below bar code **(6)**
Equipment Number	Mandatory	Only when MSF100.TRACKING_IND = "E"
	Data Source	MSF600.PLANT_NO
	Data Format (Source)	Up to 30 characters (alphanumeric and non-alphanumeric)
	Encoded Data Format	As extracted from MILIS (no change from source)
	HRI Label	"S/Eq No: "
	HRI Format	As extracted from MILIS (no change from source)
	HRI Location	Below bar code **(6)**
Batch Lot	Mandatory	Only when MSF100.BATCH_LOT_MGT_IND = "Y"
	Data Source	MSF1HD.BATCH_LOT_NO
	Data Format (Source)	Up to 10 characters (alphanumeric and non-alphanumeric)
	Encoded Data Format	As extracted from MILIS (no change from source)
	HRI Label	"B/L: "
	HRI Format	As extracted from MILIS (no change from source)
	HRI Location	Below bar code **(7)**
Use By Date	Mandatory	Only when MSF100.SHELF_LIFE <> "" or NULL
	Data Source	MSF1HD.USE_BY_DATE
	Data Format (Source)	8 characters (fixed), format "CCYYMMDD"
	Encoded Data Format	"DD MMM YY"
	HRI Label	"USE BY: "
	HRI Format	"DD MMM YY"
	HRI Location	Below bar code **(8)**

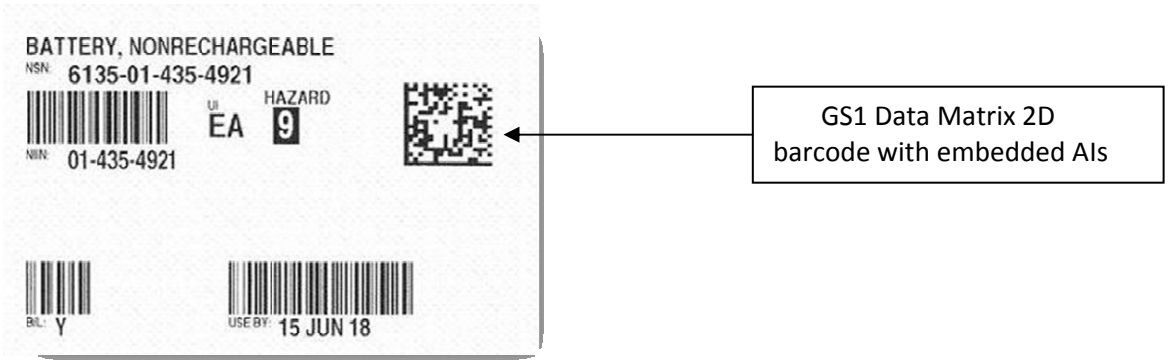
Table 5 - Linear Bar Code Attributes

Two-Dimensional Bar Code

A single ***GS1 Data Matrix*** two dimensional (2D) bar code compliant with GS1 commercial standard specifications shall be included on the label with the attributes shown in Table 6 (overpage). To enable MILIS to populate the relevant MILIS field when reading a 2D barcode GS1 AIs are required. The relevant GS1 AIs used within Defence are listed in Table 7. Relevant AIs are to proceed the NSN, Serial number, Equipment number, Batch Lot and Use By Date in the data entered for the data matrix barcode. Unlike the linear barcode there is no requirement for a HRI to be placed under the 2D barcode.

A single scan of the 2D barcode, if correctly coded with AIs, will populate all relevant fields in MILIS (NIIN, Batch Lot, Use by Date and Serial number) if the item has them.

If the supplier barcode software has an error correction code (ECC) capability suppliers must use the default correction scheme of ECC 200 unless otherwise agreed.



Bar Code	Attribute	Detail
NSN	Mandatory	Yes
	Data Source	SUBSTR(MSF100.CATEG_ID, 1, 4)+MSF100.STOCK_CODE
	Data Format (Source)	13 numeric characters (fixed)
	Encoded Data	As extracted from MILIS (no change from source)
	AI	7001 - NATO Stock Number
Serial Number	Mandatory	Only when MSF100.TRACKING_IND = “S”
	Data Format (Source)	MSF1ST.TRACK_REF_NO
	Data Length	Up to 30 characters (alphanumeric and non-alphanumeric)1
	Encoded Data	As extracted from MILIS (no change from source)
	AI	21 - Serial Number, when data is 20 characters or less in length
		250 - Secondary Serial Number, when data is greater than 20 characters
Equipment Number	Mandatory	Only when MSF100.TRACKING_IND = “E”
	Data Source	MSF600.PLANT_NO
	Data Format (Source)	Up to 30 characters (alphanumeric and non-alphanumeric)
	Encoded Data	As extracted from MILIS (no change from source)
	AI	241 - Customer Part Number
Batch Lot	Mandatory	Only when MSF100.BATCH_LOT_MGT_IND = "Y"
	Data Source	MSF1HD.BATCH_LOT_NO
	Data Format (Source)	Up to 10 characters (alphanumeric and non-alphanumeric)
	Encoded Data	As extracted from MILIS (no change from source)
	AI	10 - Batch Lot or Number
Use By Date	Mandatory	Only when MSF100.SHELF_LIFE <> “” or NULL
	Data Source	MSF1HD.USE_BY_DATE
	Data Format (Source)	8 characters (fixed), format “CCYYMMDD”
	Encoded Data	“YYMMDD”
	AI	17 - Expiration Date

Table 6 - Data Matrix Attributes

[1] Some serial numbers may contain non-alphanumeric characters, all equipment numbers will contain at least the non-alphanumeric character “-“. GS1 have advised that this is acceptable providing the characters are from ISO/IEC 646, listed as Annex G in DEF(AUST) 1000C Part 12.

Attribute	AI	Format	Comment
NSN – NATO Stock Number	7001[2]	N13	NSN numerical characters only, no separator character (“-“).
Serial Number	21	an..20	Serial Number if less than 20 characters – may be original part number from supplier
Serial Number	251	an..20	Serial Number if greater than 20 characters – may be original part number from supplier
Equipment Tracking Number[3]	241	an..30	Customer Part Number
Batch Lot	10	an..20	Batch or Lot Number
Expiry Date	17	N6	Format YYMMDD

Legend

*	When only year and month are required DD must be filled with “00”
+	The actual data title may be specified by the issuer of the data
±	The fourth digit of the AI “n” - indicates the decimal point indicator “s” - indicates the sequence of the processors in the supply chain

Conventions

A	alphabetic characters
N	numeric characters
An	alphanumeric characters

Examples

n3	three numeric characters, fixed length
n..10	up to ten numeric characters, variable length
an..30	up to thirty alphanumeric characters, variable length

Table 7 - GS1 Application Identifiers

[2] AI (7001) must be concatenated with AI (01) or AI (02) when using the GS1 DataMatrix Bar Code Symbology.

[3] The equipment Tracking Number is an internal number allocated by Defence to the item. Suppliers must contact Defence if the number has not been provided in the contract.

Part 2: Label Physical Aspects

Part 2 outlines the type of barcode label to be used and the physical placement of the barcode label on Defence inventory as detailed in DEF(AUST)1000C Part 5, reference B. This information is required to ensure adequate life of a readable label and one that can be easily located for identification and scanning purposes. It is not the intent of this Handbook to cover the different types of packaging labels contained in reference B (Consignment, hazard/dangerous goods, handling. storage, contractual and transport).

BARCODE INVENTORY LABEL TYPES

Defence has developed a suite of barcode labels that enables a fit for purpose label to be applied to all inventory types. The labels identified below are the current in service codified labels used within Defence. Defence suppliers are not bound to utilise the Defence purchased label(s) but any alternative is to meet Defence standards in colour, size and durability. Examples of the Defence labels are at annex A.

Indoor Storage Label (K-Label). This is the standard Defence white Kimdura Label (K-Label) used for inventory stored indoors. Label dimensions are 95mm x 65mm. The NIIN for this label is 66-160-2597. An example is at annex A diagram A-1.

Outdoor Storage Label (OD-Label). This is a water resistant light green label designed for use on inventory that may be stored in the open environment. Label dimensions are 95mm x 65mm. The NIIN for this label is 66-160-2595. An example is at annex A diagram A-2.

Waterproof Outdoor Storage Label (WOD-Label). This is a fully waterproof light grey label designed for use on inventory that is subject to immersion and regularly contact with water. The dimensions are 95mm x 65mm. The NIIN for this label is 66-160-2591. An example is at annex A diagram A-3.

Tyre label (T-Label). This is a beige/cream colour label that is suitable for application on rubber based products. The dimensions are 95mm x 65mm. The NIIN for this label is 66-160-2593. An example is at annex A diagram A-4.

BARCODE INVENTORY TAGS

Not all Defence inventory is suitable to having a barcode label attached to it. As an alternative the use of attachable tags are recommended. An example of a Defence inventory tag is at annex B.

Valeron Tag (V-Tag). Tags are yellow in colour and are made of a materiel that can not be ripped or torn. Unlike labels that are stuck onto inventory tags are attached using cable ties, string or wire. The dimensions are 95mm x 65mm. The NSN is 66-160-2598.

All printing on labels and tags, regardless of type, will be black and will conform with Reference C or as specifically stated in Part 1 of this document.

APPLICATION OF LABELS AND TAGS

The following sections outline the type and application location of barcode labels and tags to be applied to Defence procurements.

Indoor storage labels:

When and item is to be stored indoors two labels are to be affixed to all inventory outer and intermediate containers where this is possible. The labels are to be affixed to the lower right hand side of one long and one short side of the outer container or commercial purpose packaging (this is known as Panel 9).

This is not considered possible where:

General Service Inventory is not packaged in an outer container due to the nature of the item. In this case the inventory is either to be packaged into an outer container or a V-Tag is to be affixed if to be stored indoors.

Outer container packages are smaller than 15cm x 15cm x 10cm in size. In this case one K -Label is to be affixed centrally. Where the size of the outer package is so small that it precludes attachment of one Label, the item is to be placed into an outer plastic or jiffy type bag.

The outer container is a plastic bag, antistatic bag or some other form of packaging other than a box. Where this is the case, one K-Label is to be affixed to the outer packaging in a central position.

Exceptions:

Serial/Equipment Tracked Items. Serial and equipment tracked items require one Label to be applied to the inventory item outer container and one label to be applied to the Equipment Log Book (or equivalent). Serial/Equipment tracked items that are stored indoors but are not stored in outer containers are to be labelled or tagged.

Canvas and Cloth Stores. Labels are not to be applied to canvas or cloth items (including life preservers). These items require use of a Tag or manufacturers label. (see reference to indoor tags below)

Tyres. These items require use of the T-Label. (see reference to T-Labels below)

Indoor Storage – Tags:

Where a label cannot be affixed to an item to be stored indoors one yellow Tag is to be affixed to every inventory item without an outer container (stored as the item only). The Tag is to be affixed using a tie/string in a manner whereby it is obvious upon quick inspection of the item. The Tag must be able to be removed without causing damage or impact to the item. Where the item has an Equipment Log Book this is to have a K-label applied to the front cover with the same information contained upon it as the Tag affixed to the item.

It is not considered reasonable to affix a Tag to an item where:

There is doubt about whether the item will always be stored indoors during base storage – in which case an outdoor label or a waterproof outdoor label should be applied.

The item is suitable for a label to be affixed.

Exceptions:

Vehicles. All vehicles are to be bar-code labelled. (see reference to outdoor storage labelling below).

Large Metal Items. Items such as generators, shelters, containers, fridges, modules, bridges etc are to be bar-code labelled. (See reference to outdoor storage labelling below).

Marine items. Items that are designed to be in contact with water when in use, such as boats and outboard motors (not life preservers), are to be bar-code labelled with a waterproof outdoor label. (See reference to waterproof outdoor labelling below).

Bridging. Where bridging components are too small to be bar-code labelled, they are to have a Tag affixed regardless of whether they are stored indoors or outdoors. The label is to be hand-marked with 'x of x '(ie: 1 of 12 where it is a single component of an NSN comprised of 12 components/pieces).

Outdoor Storage Labels:

Where an item is stored, or is likely to be stored, outdoors, it is to have label/s applied as follows:

Rectangular or square items. Two Outdoor Labels (Green water resistant labels) are to be affixed in the same manner that labels are applied to indoor storage outer containers (bottom right hand corner of one long- and one short- side). The outdoor labels are to be applied to minimise the opportunity for rubbing where possible. Where the item has an Equipment Log Book this is to have an outdoor label applied to the front cover with the same information contained upon it as the outdoor label affixed to the item.

General Service B, C and D Vehicles. One Outdoor Label is to be affixed to the inside of the driver's door kick plate or door support pillar where deemed appropriate. Where it is impractical to apply the outdoor label to the door kick plate or door support pillar, the outdoor label is to be applied to the nearest inside flat surface to the driver's or single door. The Equipment Log Book is to have one outdoor label applied to the front cover with the same information contained upon it as the outdoor Label affixed to the vehicle.

A Vehicles. One Outdoor Label is to be affixed to the rear of the vehicle on the right hand side on a flat surface where it will be least affected by heat and dirt. The Equipment Log Book is to have one Outdoor Label applied to the front cover with the same information contained upon it as the Outdoor Label affixed to the vehicle.

CVMP (Commercial sedan/station wagon/utility) vehicles. One Outdoor Label is to be affixed to the inside of the driver's door support pillar where deemed appropriate. The Equipment Log Book is to have one indoor Label applied to the front cover with the same information contained upon it as the indoor Label affixed to the vehicle.

Trailers. One Outdoor Label is to be affixed on the right hand side of the draw-bar/A-Frame nearest where it connects with the trailer. Where the item has an Equipment Log Book this is to have an Outdoor Label applied to the front cover with the same information contained upon it as the Outdoor Label affixed to the trailer.

Motor Bikes and ATVs. One Outdoor Label is to be affixed to the right hand side of the cowling or, where this is not practicable, to the nearest guard. The Equipment Log Book is to have one Outdoor Label applied to the front cover with the same information contained upon it as the Outdoor Label affixed to the item.

Waterproof Storage Labels:

Marine items. Items that are designed to be in contact with water when in use, such as boats and outboard motors (not life preservers), are to have a Waterproof Outdoor Label applied. Where the item has an Equipment Log Book this is to have a Waterproof outdoor Label applied to the front cover with the same information contained upon it as the Waterproof outdoor Label affixed to the item. Waterproof outdoor Label are to be applied as follows:

Boats. Where possible the Waterproof Outdoor Label should be affixed to the transom near the compliance plate where this is fitted on the transom. Some boats that are stored upside down will require the Waterproof outdoor Label to be applied to the boat above the storage stacking line. This label should be applied to be read consistent with how the boat is stored in base storage (ie: if stored upside down the label is applied to be read upside down).

Outboard Motors. The Waterproof outdoor Label is to be affixed to the engine casing.

Marine panels. One Waterproof Outdoor Label is to be affixed to the bottom right hand corner of the panel. The outdoor labels are to be applied to minimise the opportunity for rubbing where possible.

Bridging. Single bulk stacked NSNs are to have a Tag attached to the front and rear of each stack. Each individual bridging component not bulk stacked is to have either a Tag or Waterproof outdoor Label applied reflecting the NSN that the bridging component is held under. The label is to be hand-marked with 'x of x '(ie: 1 of 12 where it is a single component of an NSN comprised of 12 components/pieces). Where the bridging has an Equipment Log Book, this is to have one Waterproof outdoor Label applied to the front cover with the same information contained upon it as the Waterproof outdoor Label affixed to the bridging.

Rubber Compound Labels (Tyre-Label):

Tyres. Quantity two Tyre Labels are to be affixed to all tyres stored where this is possible. The Tyre Labels are to be affixed to the outside surface of the tyre facing the pick face and to one side. If a pallet containing tyres is shrunk wrapped the bottom tyre is to be labelled and the lesser of 10 labels or the number of labels to match the number of tyres stored on the pallet, is to be attached to the pallet.

Part 3: Item Packaging

Part 3 outlines the packaging requirements and specifications to be used for Defence inventory as detailed in DEF(AUST)1000C Part 2 and 15, reference C and D respectively. This information is required to ensure adequate life of the chosen storage container medium to protect the item and to ensure it can be stored within Defence wareshousing storage mediums.

It is not the intent of this Handbook to cover the different types of specialist packaging contained in other Parts of DEF(AUST)1000C (Hazard/dangerous goods, anti-static, magnetic coponents, air load). Detail on specialist packaging can be found DEF(AUST)1000C Part 2 Section F and Parts 6 and 7.

LEVELS OF PACKAGING

GENERAL

DEF(AUST)1000C Part 2 details the specific packaging requirements for different layers of packaging, storage and intended use of the package. This section aims to summarise the key information.

There are generally three types of a package layer: Unit Package, Inner Package and Outer Package. The description of each is as follows:

Unit Package. Also known as the 'primary package'. The first tie, wrap, or container applied to a single item, quantity or group of items of a single stock number, packaged to constitute a complete or identifiable package.

Inner Package. Also known as the ‘intermediate package’. The second tie, wrap, or container generally applied to a quantity or group of items of a single stock number, packaged to constitute a complete grouping of Unit packages.

Outer Package. Can be the second (if no inner package) or third tie, wrap, or container generally applied to a quantity or group of items of a single stock number, packaged to constitute a complete grouping of Unit packages or Inner Packages.

STANDARDS

Each layer will have different packaging standards and requirement which will be determined by the end use and storage requirements of the item. Packaging requirements are broken into Service Standard and Industry Standard as detailed below.

Service Standard

Level A Pack. This standard of packaging shall ensure serviceability of supplies for a minimum period of three years from the date of packaging, including all weather protection for consignment, multiple handling, indeterminate conditions of storage and redistribution. Items in this category are those for which the ultimate destination, handling, storage conditions and duration are unknown and cannot be determined at the time of procurement. Generally related to packs prepared for overseas combat destinations and life of type storage.

Level B Pack. This standard of packaging shall ensure serviceability of supplies for a minimum period of three years from the date of packaging for consignment, multiple handling and known conditions of storage and redistribution. Items in this category are those for which the ultimate destination, handling, storage conditions and duration are known at the time of procurement. Generally includes covered storage for a period of not less than three years in temperate climates, transportation, handling and redistribution within mainland Australia.

Level C Pack. This standard of packaging shall ensure serviceability of supplies for a minimum period of one year from the date of packaging, including protection against climatic and physical damage during consignment, handling and storage from supply source to the receiving authority. Items in this category are those for which the ultimate destination, handling, storage conditions and duration are known. Generally includes covered storage for up to one year in temperate climates, with limitations on handling, transportation and redistribution.

Industry Standard

Commercial Trade Pack. Items in this category are those for which procurement action has been initiated to satisfy an immediate need and where they are consigned by the supplier to the receiving authority for use. This package shall normally be used by the manufacturer for commercial deliveries to a destination within Australia that would involve movement by any medium of transport. The standard of packaging shall ensure that the condition of the item or supplies, upon delivery to the nominated receiving authority is identical to the condition in which it was packed by the supplier.

Export Trade Pack. Items in this category are those for which procurement action has been initiated to satisfy an immediate need and where they are consigned by the supplier to the receiving authority for use outside of Australia. This package shall normally be used by the manufacturer for commercial deliveries of supplies overseas. The standard of packaging shall ensure the delivery of the supplies in a serviceable condition to the nominated receiving authority complete with identification marking in accordance with the terms of the contract.

Deviations. The specific technical packaging requirements referenced in procurement documents shall be mandatory upon suppliers[4]. Request to depart from the requirements shall be made in writing, showing justification, costings and proposals, to the appropriate Service's Procurement Authority.

PACKAGING MATERIELS

Fibreboard

In general there are three types of fibreboard packaging containers approved for use IAW DEF(AUST)1000C Part 15:

- Type I - Single wall.
- Type II - Double wall
- Type III -Triple wall.

[4] DEF(AUST) 1000C Part 2 Section C Para 4

Each type has its own specification in regards flute size, compression resistance, bursting strength and water resistance.

Type I fibreboard is generally used for Commercial or Level C Pack usage for items going direct to the end user.

Type II fibreboard is generally used for Commercial Pack of heavier items or items requiring further protection and Level B Pack. Type II fibreboard is also often used as an Inner Packaging medium.

Type III fibreboard is generally used as an Outer Package container for numerous Commercial Pack items or Level A Pack items.

Coding of fibreboard packaging containers

The coding used conforms with the modularisation of boxes to the Australian Standard Pallet (1165 x 1165mm) to maximize storage space and minimise transport costs. The code system is based on external dimensions. Each size is identified by three digits e.g. 2.2.3. The first digit (2) represents the number of boxes across one horizontal face of the pallet, the second digit (2) the number across the other horizontal face of the pallet and the third digit (3) the number of boxes in the height above the pallet. The maximum pallet stacking height shall be the height of the load, which shall be 850 mm maximum, plus the pallet height. In Tables 8-10 below 'M' denotes metric series.

The full list of Defence approved size boxes is detailed in DEF(AUST)1000C Part 15. The box sizes listed in the Table 8-10 below are the preferred size boxes for storage within JLC warehouses and storage mediums.

SIZE CODE	NSN	External Dimensions Nominal mm L x W x H	Internal Dimensions Nominal mm L x W x H	Capacity M3	Item Manager
M.6x8x7	8115-66-107-1281	170 x 130 x 122	162 x 122 x 106	0.002	ENGSPO
M.6x8x3	8115-66-107-1282	170 x 130 x 245	162 x 122 x 229	0.004	ENGSPO
M.3x8x3	8115-66-107-1284	345 x 130 x 245	337 x 122 x 229	0.009	ENGSPO
M.3x4x3	8115-66-107-1286	345 x 265 x 245	337 x 257 x 229	0.019	ENGSPO

Table 8 - Box fibreboard, corrugated, single wall regular slotted range

SIZE CODE	NSN	External Dimensions Nominal mm L x W x H	Internal Dimensions Nominal mm L x W x H	Capacity M3	Item Manager
M.3x4x2	8115-66-099-7232	366 x 275 x 425	350 x 259 x 393	0.036	ENGSPO
M.2x3x2	8115-66-099-7236	550 x 366 x 425	534 x 350 x 393	0.073	ENGSPO
M.1x1x2	8115-66-109-3668	1080 x 1080 x 400	1064 x 1064 x 368	0.417	ENGSPO
M.1x1x1	8115-66-113-8907	1080 x 1080 x 730	1064 x 1064 x 698	0.790	ENGSPO
M.1x2x1	8115-66-131-2531	1080 x 520 x 510	1064 x 504 x 478	0.256	Direct Vendor SYD

Table 9 - Box fibreboard, corrugated, double wall regular slotted range

SIZE CODE	NSN	External Dimensions Nominal mm L x W x H	Internal Dimensions Nominal mm L x W x H	Capacity M3	Item Manager
M.1x1x2	8115-66-114-9617	1072 x 1072 x 367	1044 x 1044 x 311	0.338	SELMU
M.1x1x1	8115-66-114-9618	1072 x 1072 x 794	1044 x 1044 x 738	0.804	SELMU

Table 10 - Box fibreboard, corrugated, triple wall regular slotted range

Plastic Storage bags

The size of plastic bags used as inner packaging for storage in carousel and bin locations are also contained in DEF(AUST)1000C. These are listed in Table 11 below.

NSN	ITEM DESCRIPTION	DIMENSIONS
8105-66-131-2520	BAG	400mm x 430mm
8105-66-131-2521	BAG	350mm x 380mm
8105-66-131-2522	BAG	300mm x 330mm
8105-66-131-2523	BAG	250mm x 280mm
8105-66-131-2524	BAG	200mm x 230mm
8105-66-131-2525	BAG	175mm x 195mm
8105-66-131-2526	BAG	150mm x 170mm
8105-66-131-2527	BAG	125mm x 145mm
8105-66-131-2528	BAG	100mm x 120mm

Table 11- Plastic storage bags

Other Packaging Materiel

DEF(AUST)1000C also has full details of other packaging materiel and this information can be found in the respective Sections as detailed below:

Part 15 Section B. Wood Containers. Like fibreboard containers there are different grades of wood boxes. The level of pack will determine the strength and build specifications of a wooden box. Level A would be fully reinforced specialist box designed for any storage climate where a Level C box may be made of chipboard as the storage medium was known to be indoors.

Part 20 Section 1 Chapter 2. Metal Containers. This section covers the rotable repair containers and other specialist item protection containers. Again there are multiple grades of metal containers and the standard of inner protective layers within the container.

Part 20 Section 1 Chapter 2. Polymer Containers. There are multiple grades of polymer containers and the standard of inner protective layers within the container**.**

GENERAL PACKAGING GUIDELINES

Pallets

Defence accepts two standards of pallets, the Australian Standard 1165x1165mm and the Military (or Export) Standard pallet of 1100x1100mm. Items delivered to JLC not on either of these sized pallets require repackaging to enable them to be stored in Defence pallet racking. The cost of repackaging is currently borne by JLC, but this practice will cease from 1 Jul 13due to new support contract arrangements. Half pallets (500x500mm) or heavy item tailored pallets smaller than 1100x1100mm will not be accepted from 1 Jul 13 unless the procurement authority agrees to pay the repackaging costs.

The exception is for oversize single items that are longer or wider than 1165mm.

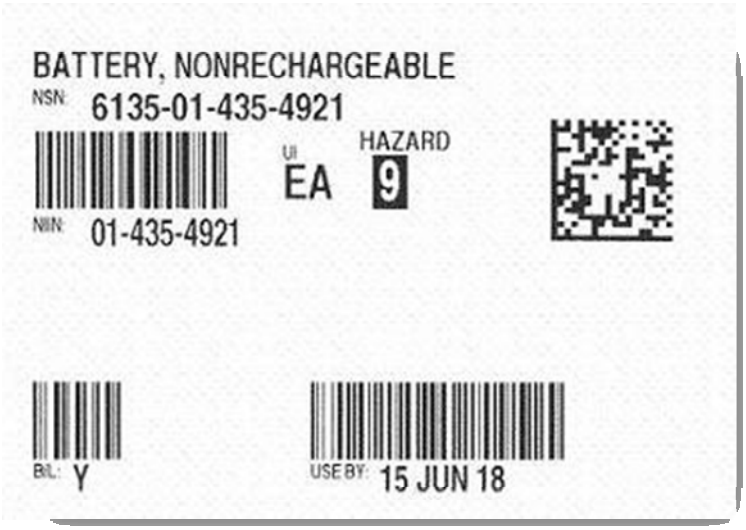
Multi layer containers

The preferred size fibreboard boxes have been listed above in Tables 8-10. The use of these boxes will allow a modular inner package combination within an external outer container. As a NSN may have multiple suppliers each supplier should be contracted to use the same configuration and standard of packaging to enable the volumetric application of a Warehouse Management System to work. This leads to greater efficiencies in warehouse storage.

Where possible it is preferred to have inner packages in quantities of multiples of 10, 100, 1000 etc. Items may start in Commercial Packs of quantities of ten, then be layered in Inner Container (Type II fibreboard) of quantities of 100 with the Outer Container being Type III for a Level A Pack as an example. Any singular inner container must not weigh more than 15kg unless handles are provided to enable a two person lift.

Annex A – Label Type Examples

Indoor Label – Kimdura Label (K-Label) Example:



Outdoor Label Example:

Waterproof Outdoor Label Example:

Tyre Label Example:

Annex B – Tag Type Examples

Valeron Tag Exampl

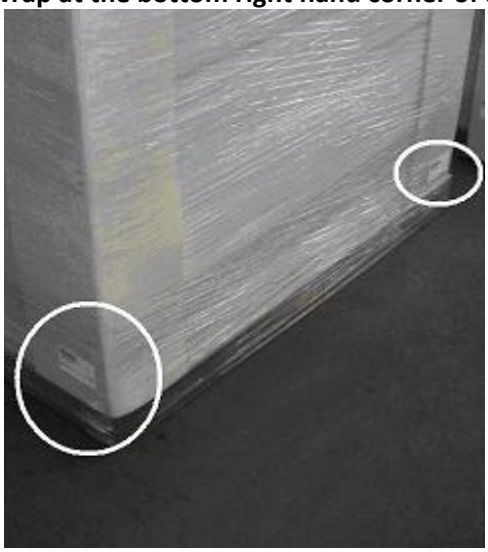
Annex C – Examples of Label and Tag Placement

Labels affixed to bottom right hand corner (panel 9) of adjacent vertical surfaces:

Tag attached to a rotable container:

Tag attached to each item not container in outer packaging:

Labels affixed to the shrink wrap at the bottom right hand corner of adjacent faces of pallet:



One waterproof outdoor label affixed to transform or stern of item above waterline:

One tag/label attached to an oversize item:

One label attached to outer packaging in central location:

Label attached to individual item:

Annex D – Defence GS1 Application Identifiers

AI	Full Title	Format		Data Title
		AI	Data	
00	Serial Shipping Container Code	n2	n18	SSCC
01	Global Trade Item Number	n2	n14	GTIN
02	GTIN of Trade Items Contained in a Logistic Unit	n2	n14	CONTENT
10	Batch or Lot Number	n2	an..20	BATCH/LOT
11*	Production Date (YYMMDD)	n2	n6	PROD DATE
12*	Date Due (YYMMDD)	n2	n6	DUE DATE
13*	Packaging Date (YYMMDD)	n2	n6	PACK DATE
15*	Best Before Date (YYMMDD)	n2	n6	BEST BEFORE or SELL BY
17*	Expiration Date (YYMMDD)	n2	n6	USE BY or EXPIRY
20	Product Variant	n2	n2	VARIANT
21	Serial Number	n2	an..20	SERIAL
22	Secondary Data for Specific Health Industry Products	n2	an..29	QTY/DATE/BATCH
240	Additional Product Identification Assigned by the Manufacturer	n3	an..30	ADDITIONAL ID
241	Customer Part Number	n3	an..30	CUST. PART NO.
242	Made-to-Order Variation	n3	n...6	VARIATION NUMBER
250+	Secondary Serial Number	n3	an..30	SECONDARY SERIAL
251+	Reference to Source Entity	n3	an..30	REF. TO SOURCE
253	Global Document Type Identifier	n3	n13+n..17	DOC. ID
254	GLN Extension Component	n3	an..20	GLN EXTENSION
30	Variable Count	n2	n..8	VAR. COUNT
310n±	Net Weight – Kilograms - Trade	n4	n6	NET WEIGHT (kg)
311n±	Length of First Dimension - Metres - Trade	n4	n6	LENGTH (m)
312n±	Width, Diameter, or Second Dimension - Metres – Trade	n4	n6	WIDTH (m)
313n±	Depth, Thickness, Height, or Third Dimension - Metres – Trade	n4	n6	HEIGHT (m)
314n±	Area - Square Metres - Trade	n4	n6	AREA (m2)
315n±	Net Volume - Litres – Trade	n4	n6	NET VOLUME (l)
316n±	Net Volume - Cubic Metres - Trade	n4	n6	NET VOLUME (m3)
330n±	Gross Weight - Kilograms - Logistic	n4	n6	GROSS WEIGHT (kg)
331n±	Length or First Dimension - Metres – Logistic	n4	n6	LENGTH (m), logistic
332n±	Width, Diameter, or Second Dimension - Metres – Logistic	n4	n6	WIDTH (m), logistic
333n±	Depth, Thickness, Height, or Third Dimension - Metres – Logistic	n4	n6	HEIGHT (m), logistic
334n±	Area - Square Metres - Logistic	n4	n6	AREA (m2), logistic
335n±	Gross Volume - Litres - Logistic	n4	n6	VOLUME (l), logistic
336n±	Gross Volume - Cubic Metres - Logistic	n4	n6	VOLUME (m3), logistic
337n±	Kilograms Per Square Metre	n4	n6	KG PER m2
37	Count of Trade Items Contained in a Logistic Unit	n2	n..8	COUNT

AI	Full Title	Format		Data Title
		AI	Data	
390n±	Amount Payable - Single Monetary Area	n4	n..15	AMOUNT
391n±	Amount Payable - With ISO Currency Code	n4	n3+n..15	AMOUNT
392n±	Amount Payable for a Variable Measure Trade Item - Single Monetary Unit	n4	n..15	PRICE
393n±	Amount Payable for a Variable Measure Trade Item - With ISO Currency Code	n4	n3+n..15	PRICE
400	Customer's Purchase Order Number	n3	an..30	ORDER NO.
401	Global Identification Number for Consignment	n3	an..30	GINC
402	Global Shipment Identification Number	n3	n17	GSIN
403	Routing Code	n3	an..30	ROUTE
410	Ship To - Deliver To GS1 Global Location Number	n3	n13	SHIP TO LOC.
411	Bill To - Invoice to GS1 Global Location Number	n3	n13	BILL TO
412	Purchased From GS1 Global Location Number	n3	n13	PURCHASE FROM
413	Ship For - Deliver For - Forward To GS1 Global Location Number	n3	n13	SHIP FOR LOC.
414	Identification of a Physical Location GS1 Global Location Number	n3	n13	LOC. NO.
415	GS1 Global Location Number of the Invoicing Party	n3	n13	PAY TO
420	Ship To - Deliver To Postal Code Within a Single Postal Authority	n3	an..20	SHIP TO POST
421	Ship To - Deliver To Postal Code With Three-Digit ISO Country Code	n3	n3+an..9	SHIP TO POST
422	Country of Origin of a Trade Item	n3	n3	ORIGIN
423	Country of Initial Processing	n3	n3+n..12	COUNTRY – INITIAL PROCESS
424	Country of Processing	n3	n3	COUNTRY – PROCESS
425	Country of Disassembly	n3	n3	COUNTRY – DISASSEMBLY
426	Country Covering Full Process Chain	n3	n3	COUNTRY - FULL PROCESS
7001	NATO Stock Number	n4	n13	NSN
7002	UN/ECE Meat Carcasses and Cuts Classification	n4	an..30	MEAT CUT
7003	Expiration Date and Time	n4	n10	EXPIRY DATE/TIME
703s±	Approval Number of Processor with ISO Country Code	n4	n3+an..27	PROCESSOR # s4
8001	Roll Products - Width, Length, Core Diameter, Direction, and Splices	n4	n14	DIMENSIONS
8002	Electronic Serial Identifier for Cellular Mobile Telephones	n4	an..20	CMT NO.
8003	GS1 Global Returnable Asset Identifier	n4	n14+an..16	GRAI
8004	GS1 Global Individual Asset Identifier	n4	an..30	GIAI
8005	Price Per Unit of Measure	n4	n6	PRICE PER UNIT
8006	Identification of the Components of a Trade Item	n4	n14+n2+n2	GCTIN
8007	International Bank Account Number	n4	an..30	IBAN
8008	Date and Time of Production	n4	n8+n..4	PROD. TIME
8018	GS1 Global Service Relation Number	n4	n18	GSRN
8020	Payment Slip Reference	n4	an..25	REF. NO.
8100	GS1-128 Coupon extender Code - U.P.C Prefix + Offer Code	n4	n1+n5	-

AI	Full Title	Format		Data Title
		AI	Data	
8101	GS1-128 Coupon Extender Code - U.P.C Prefix + Offer Code + End of Offer Code	n4	n1+n5+n4	-
8102	GS1-128 Coupon Extended Code - U.P.C Prefix	n4	n1+n1	-
90+	Information Mutually Agreed Between Trading Partners	n2	an..30	INTERNAL
91-99+	Company Internal Information	n2	an..30	INTERNAL

Legend

*	When only year and month are required DD must be filled with "00"
+	The actual data title may be specified by the issuer of the data
±	The fourth digit of the AI "n" - indicates the decimal point indicator "s" - indicates the sequence of the processors in the supply chain

Conventions

A	alphabetic characters
N	numeric characters
An	alphanumeric characters

Examples

n3	three numeric characters, fixed length
n..10	up to ten numeric characters, variable length
an..30	up to thirty alphanumeric characters, variable length