

CNV-1063 Packing Determination

Status	Approved
Owner	VAN NIEKERK-ext, ivan
Stakeholders	

Purpose

The purpose of this document is to define the conversion approach to create Packing Determination Data in S/4 HANA. following the [DD-FUN-050 Master Data Stadard_1063-Packing Determination](#) Master data design standard

We will taking on all the packing determination records from Legacy Systems for Materials in Scope as per Basic Data View,

An access sequence is assigned to the condition type. The key combinations contained in the access sequence are used for assigning the Packing instruction to characteristics combinations such as material/customer.

Conversion Scope

The data from legacy system includes:

1. We will migrate all the packing determinations from Legacy Systems for Materials in Scope as per Basic Data View, Materials without a Deletion indicator

The data from legacy system excludes:

All Condition Types with an expired Valid to Date (DATBI)

The data from legacy system includes depending on Key Combination:

Material
Material/Ship-to part
Material/Ship-to party/Use
Material/Plant
Material/Plant/Storage Location
Material/Vendor
Material/Ship.type
Ship.point/Transp.Group/Ship.Condition
Ship.point/Transp.Group/Ship.Condition/Ship-to party
Material/Ship.type/Ship-to pt
Plant/Material/Ship-to pt
Plant/Material/Country
Plant/Material/Export
Plant/Shipping condition/Material/Ship-to
Plant/Material/Pack.Unit

List of source systems and approximate number of records

Source	Scope	Source Approx No. of Records	Target System	Target Approx No. of Records
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PF2	All active Packing Determination records with a valid date	Approx 38k records in WQ2 (used as baseline)	S4H	Depending on Consolidation of Plants /Materials

Additional Information

Multi-language Requirement

N/A

Document Management

N/A

Legal Requirement

N/A

Special Requirements

N/A

Target Design

This MDS will be further updated once the actual Determination Types and Key Combinations to be used by the business are known. This will thus feed into the CNV.

The technical design of the target for this conversion approach.

Table	Field	Data Element	Field Description	Data Type	Length	Requirement
KOTPxxx	KSCHL	KSCHL_PV	Application	CHAR	4	Required
KOTPxxx	MATNR	MATNR	Material Number	CHAR	18	Conditional
KOTPxxx	WERKS	WERKS_D	Plant for packing Instruction determination	CHAR	4	Conditional
KOTPxxx	LIFNR	LIFNR	Vendor for Packing Instruction	HAR	10	Conditional
KOTPxxx	KUNWE	PL_KUNWE	Ship-to Party or packing instruction determination	CHAR	10	Conditional
KOTPxxx	ABRVW	ABRVW	Usage Indicator	CHAR	3	Conditional
KOTPxxx	LGORT	LGORT_D	Storage Location	CHAR	4	Conditional
KOTPxxx	DATAB	KODATAB	Validity start date of the condition record	DATS	8	Required
KOTPxxx	DATBI	KODATBI	Validity end date of the condition record	DATS	8	Required
KONDP	PACKNR	PL_PACKNR_CONV	Packing Instruction	CHAR	22	Required
KONDP	PACKNR1	PL_PACKNR_CONV	Packing instruction	CHAR	22	Conditional
KONDP	PACKNR2	PL_PACKNR_CONV	Alternative Packing instruction 2	CHAR	22	Conditional
KONDP	PACKNR3	PL_PACKNR_CONV	Alternative Packing instruction 3	CHAR	22	Conditional
KONDP	PACKNR4	PL_PACKNR_CONV	Alternative Packing instruction 4	CHAR	22	Conditional

Depending On the Determination Type Various Tables and Columns Come into Scope. (See Figure1)

figure1

Pkg Instruction - Display Determination Recs: Initial Screen

Determination record Edit Goto Environment System Help

Overview Key...

Determination type SHIP 1

Key Combination

☒ Plant/Shipping condition/Material/Ship-to pt

☐ Material/ship-to party/usage

☐ Material/Ship.type/Ship-to pt

☐ Material/ship-to party

☐ Plant/Shp.Cond./Material

☐ Material/Plant

☐ Material/Ship.type

☐ Material

☐ Ship.point/Transp.Group/Ship.Condition/Ship-to party

☐ Ship.point/Transp.Group/Ship.Condition

✓ ✗

2

The following Matrix shows which fields are in scope per table:

x designates a copy Action

Note* KOTHP9xx series are as per Current "as is" Naming. As the tables are custom numbering dependant on Config the "To Be" numbering may be different. Can only confirm once setup in target

		FIELD	KAPP L	KSCHL	D A T BI	DA TAB	KNU MH	M A T NR	KUNWE	ABRVWWE R KS	LGORT	LIE NR	VER SART	VSTEL	TRAGR	ZZVSB ED	LAN D1	EXPKZ	ZZU NIT	
Table Name	Key Combination)	Field Description	Application	Condition type for packing object determination	Valid To	Valid From	Cond. record no.	Material	Ship-to party for packing instruction determination	Usage Indicator	Plant	Storage Location	Vendor	Shipping Type	Shipping Point /Receiving Point	Transportation Group	Shipping Conditions	Country Key	Export Indicator	Packing Unit
KOT P001	Material		x	x	x	x	x	x												
KOT P100	Material/Ship-to part		x	x	x	x	x	x	x											
KOT P110	Material/Ship-to party /Use		x	x	x	x	x	x	x	x										
KOT P200	Material/Plant		x	x	x	x	x	x			x									
KOT P210	Material/Plant/Storage Location		x	x	x	x	x	x			x	x								
KOT P400	Material/Vendor		x	x	x	x	x	x					x							
KOT P900	Material/Ship.type		x	x	x	x	x	x					x							

KOT P910	Ship.point/Transp. Group/Ship.Condition		x	x		x	x	x							x	x	x			
KOT P911	Ship.point/Transp. Group/Ship.Condition /Ship-to party		x	x		x	x	x		x					x	x	x			
KOT P990	Material/Ship.type/Ship-to pt		x	x		x	x	x	x					x	x					
KOT P991	Plant/Material/Ship-to pt		x	x		x	x	x	x	x				x						
KOT P992	Plant/Material/Country		x	x		x	x	x	x		x							x		
KOT P993	Plant/Material/Export		x	x		x	x	x	x		x								x	
KOT P994	Plant/Shipping condition/Material/Ship-to		x	x		x	x	x	x	x	x						x			
KOT P996	Plant/Material/Pack.Unit		x	x		x	x	x	x		x									x

Data Cleansing

ID	Criticality	Error Message/Report Description	Rule	Output	Source System
1	n/A	Currently no cleansing requirement identified	N/A	N/A	N/A

Conversion Process

The high-level process is represented by the diagram below:

Data Privacy and Sensitivity

Extraction

Extract data from a source into . There are 2 possibilities:

- The data exists. connects to the source and loads the data into . There are 3 methods:
 - Perform full data extraction from relevant tables in the source system(s).
 - Perform extraction through the application layer.
 - Only if ; cannot connect to the source, data is loaded to the repository from the provided source system extract/report.
- The data does not exist (or cannot be converted from its current state). The data is manually collected by the business directly in . This is to be conducted using DCT (Data Collection Template) in

The agreed Relevancy criteria is applied to the extracted records to identify the records that are applicable for the Target loads

Extraction Run Sheet

Req #	Requirement Description	Team Responsible
1	Extract from Legacy all Determination Records for all the KOTP Tables utilised, Extract all the KONDP (Conditions for Packing objects Data Section)	Synity
2	Apply The relevancy Rules for Active records	Synity
3	Generate data and share with team	Synity

Selection Screen

Selection Ref Screen	Parameter Name	Selection Type	Requirement	Value to be entered/set
POF3	Determination Type	Dependant on Key (See <i>figure1</i>)	Mandatory	example ('SHIP')

Data Collection Template (DCT)

Target Ready Data Collection Template will be created for data with exception of some fields which require transformation as mentioned in the transformation rule.

DCT Rules

Field Name	Field Description	Rule
Not Applicable		

Extraction Dependencies

Item #	Step Description	Team Responsible
Org Structure needs to be finalised	Plants, Shipping Points, Storage Locations, Vendors, Ship to	Functionals

Transformation

The Target fields are mapped to the applicable Legacy field that will be its source, this is a 3-way activity involving the Business, Functional team and Data team. This identifies the transformation activity required to allow to make the data Target ready:

1. Perform value mapping and data transformation rules.
 - a. Legacy values are mapped to the to-be values (this could include a default value)
 - b. Values are transformed according to the rules defined in
2. Prepare target-ready data in the structure and format that is required for loading via prescribed Load Tool. This step also produces the load data ready for business to perform Pre-load Data Validation

Transformation Run Sheet

Item #	Step Description	Team Responsible
1	Obtain Relevancy signoff from Business	SyWay P2F Data Team
2	Execute Transform	SyWay P2F Data Team
3	Review & Validate Error Reports and Preload Reports	SyWay P2F Data Team
4	Generate Load files	SyWay P2F Data Team

Transformation Rules

Rule #	Source system	Source Table	Source Field	Source Description	Target System	Target Table	Target Field	Target Description	Transformation Logic
1	PF2/WP2	KOTPxxx	KSCHL	Condition type for packing object determination	S4/HANA	KOTPxxx	KSCHL	Condition type for packing object determination	Copy

2	PF2/WP2	KOTPxxx	MATNR	Material Number for packing Instruction determination	S4/HANA	KOTPxxx	MATNR	Material Number for packing Instruction determination	Value Mapping/xref
3	PF2/WP2	KOTPxxx	WERKS	Plant for packing Instruction determination	S4/HANA	KOTPxxx	WERKS	Plant for packing Instruction determination	Value Mapping/xref
4	PF2/WP2	KOTPxxx	LIFNR	Vendor for packing Instruction determination	S4/HANA	KOTPxxx	LIFNR	Vendor for packing Instruction determination	Value Mapping/xref
5	PF2/WP2	KOTPxxx	KUNWE	Ship-to party for packing instruction determination	S4/HANA	KOTPxxx	KUNWE	Ship-to party for packing instruction determination	Value Mapping/xref
6	PF2/WP2	KOTPxxx	ABRVW	The usage defines the conditions under which a material is sold	S4/HANA	KOTPxxx	ABRVW	The usage defines the conditions under which a material is sold	Copy(If Exists Key Combination)
7	PF2/WP2	KOTPxxx	LGORT	Storage location for packing instruction determination	S4/HANA	KOTPxxx	LGORT	Storage location for packing instruction determination	Value Mapping/xref
8	PF2/WP2	KOTPxxx	PACKNR	Packing Instruction Number to be used for packing	S4/HANA	KOTPxxx	PACKNR	Packing Instruction Number to be used for packing	Copy
9	PF2/WP2	KOTPxxx	DATAB	Validity start date	S4/HANA	KOTPxxx	DATAB	Validity start date	Copy
10	PF2/WP2	KOTPxxx	DATBI	Validity end date	S4/HANA	KOTPxxx	DATBI	Validity end date	Copy
11	PF2/WP2	KONDP	PACKNR	Packing instruction number to be used for packing	S4/HANA	KONDP	PACKNR	Packing instruction number to be used for packing	Copy
12	PF2/WP2	KONDP	PACKNR1	Alternative packing instruction to be used for packing.	S4/HANA	KONDP	PACKNR1	Alternative packing instruction to be used for packing.	Copy(If Exists)
13	PF2/WP2	KONDP	PACKNR2	Alternative packing instruction to be used for packing.	S4/HANA	KONDP	PACKNR2	Alternative packing instruction to be used for packing.	Copy(If Exists)
14	PF2/WP2	KONDP	PACKNR3	Alternative packing instruction to be used for packing.	S4/HANA	KONDP	PACKNR3	Alternative packing instruction to be used for packing.	Copy(If Exists)
15	PF2/WP2	KONDP	PACKNR4	Alternative packing instruction to be used for packing.	S4/HANA	KONDP	PACKNR4	Alternative packing instruction to be used for packing.	Copy(If Exists)

Transformation Mapping

Mapping Table Name	Mapping Table Description	
1	Ensure all Transformation mappings are up to date	Synity/Data Team
2	Check Tables for fields are up to date & complete	Synity/Data Team
3	- Legacy Plant to Target Plant as per Plant Consolidation xref - Customer/Vendor/BP as per Legacy-Target xref - Legacy vs To Be Material Numbering xref - Legacy vs To Be Storage Locations	Synity/Data Team

Transformation Dependencies

List the steps that need to occur before transformation can commence

Item #	Step Description	Team Responsible
1	In case Cleansing is applied in future , this needs to be applied, finalised & validated	Syway Data Team/Synity

Pre-Load Validation

Project Team

Completeness

Task	Action
Verify Record Counts	SyWay P2F Data team need to verify that the total number of records in PREP (Relevancy) ties back to the number of records in the Load file. Any errors need to be assessed and either remediated or cleansed

Accuracy

Task	Action
Conversion Accuracy	Syway P2F Data Team to verify that all fields below meet the checks: 1. Mandatory fields filled out 2. Field and Value Mapping correct. 3. Null records need to be checked 4. Field lengths need to be correct
Review Error Reports	Review and correct the errors. Raise defects for data remediated and requiring a correction in the source data

Business

Completeness

Task	Action
To check Data Accuracy checking count of records to load and loaded	Business Data Owner/s to verify that the total number of relevant records from the the Load file is equal to the total number of records in the Preload and PREP count.

Accuracy

Task	Action
Data owners to grant that the records in the load files are okay and according with the rules and mappings	To check and validate the load files with all the transformation and mapping rules. Ensure that all Signoffs are received.

Load

The load process includes:

1. Execute the automated data load into target system using load tool or product the load file if the load must be done manually
2. Once the data is loaded to the target system, it will be extracted and prepared for Post Load Data Validation

Load Run Sheet

Item #	Step Description	Team Responsible
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1	Go to Load file & Pick a few records to load manually without any tool. See if any errors are encountered.	Synity Team
2	Exclude the records used to manually load from the load file in order not to attempt to create duplicates.	Synity Team
3	Proceed with full load if above steps are successful.	Synity Team
4	Validate A few records manually & check in SAP Directly	Synity Team
5	Generate Post-load Reports & Statistics Reports (Take note of Duration of load so that this can be used for planning for FDR)	Synity Team

Load Phase and Dependencies

Master Data needs to exist

- Materials exist
- Customers/Plants/Shipping points exist
- Packing Instructions loaded
- Customizing (procedure/condition type/access sequence) is active

Packing Instructions need to exist

Field catalogue updated (For Z-fields)

Configuration

Item #	Configuration Item
1	KOTP tables need to be setup and Naming known

Conversion Objects

Object #	Preceding Object Conversion Approach
1059	IM Packing Instructions

Error Handling

This will be iterative and will be updated as the errors become known.

Error Type	Error Description	Action Taken
1	xxxx Not available in target	Inform Data Team to determine if it is missing config or if it is preceding object that did not manage to load the data but it is considered relevant.

Post-Load Validation

Project Team

Completeness

Task	Action
alidate Row counts	Check whether row counts in SAP tie back to load File & Preload Report.

Accuracy

Task	Action
Verify Accuracy	Perform fields by field Comparison to ensure that records sent in landed correctly (leading zero's & Decimal places etc)

Business

Completeness

Task	Action
Raise any defects for errors	For each mock the relevant Checks need to be performed & incidents need to be raised to ensure that we learn from our mistakes & Pro-Active reports can be built to eliminate future errors

Accuracy

Task	Action
Sign off	Performa a few checks in the system based on business process & Sign off where applicable.

Key Assumptions

- Master Data Standard is up to date as on the date of documenting this conversion approach and data load.
- [DD-FUN-050 Master Data Standard_1063-Packing Determination](#) is in scope based on data design and any exception requested by business.
- Caveat** This is an Evolving Document, expect some changes as more information becomes known

See also

Change log

Version	Published	Changed By	Comment
CURRENT (v. 11)	Apr 28, 2026 09:38	VAN NIEKERK-ext, ivan	All custom Tables have been strikethrough for Mock 1 to be revisited later

v. 10	Nov 26, 2025 13:06	VAN NIEKERK-ext, ivan
v. 9	Nov 26, 2025 13:05	VAN NIEKERK-ext, ivan
v. 8	Nov 26, 2025 12:34	RAYUDU-ext, Narasimha Kumar
v. 7	Nov 24, 2025 12:46	VAN NIEKERK-ext, ivan
v. 6	Nov 24, 2025 11:44	VAN NIEKERK-ext, ivan
v. 5	Sept 19, 2025 09:38	VAN NIEKERK-ext, ivan
v. 4	Sept 18, 2025 20:43	VAN NIEKERK-ext, ivan
v. 3	Aug 03, 2025 17:26	RAYUDU-ext, Narasimha Kumar
v. 2	Aug 03, 2025 17:23	RAYUDU-ext, Narasimha Kumar

[Go to Page History](#)

Workflow history

This view shows the 5 most recent entries. The complete workflow log is available from the 'Document Activity' menu item.

Apr 28, 2026	Actor	Type	Activity	Version
Approved	 VAN NIEKERK-ext, ivan	Edit	updated the page at 9:38 am All custom Tables have been strikethrough for Mock 1 to be revisited later	
Mar 17, 2026				
	 TAN-ext, Charmaine	State	changed state to Approved at 8:20 am (State override) [PMO Comments] Conversion Spec completed as per CS register and functional review completed	v10
Lead Approval	 TAN-ext, Charmaine	State	gave <i>Minor change</i> approval at 8:20 am [PMO Comments] Conversion Spec completed as per CS register and functional review completed	
Nov 26, 2025				
	RAYUDU-ext, Narasimha Kumar and VAN NIEKERK-ext, ivan	Edit	multiple updates from  RAYUDU-ext, Narasimha Kumar and  VAN NIEKERK-ext, ivan	



RAYUDU-ext, Narasimha
Kumar

State changed expiry date to '03 Dec, 2025 12:13 pm' at 12:13 pm

State changed state to [Lead Approval](#) at 12:13 pm

v10