



# PROPER PACKING OF CTUs: KEY TO SAFE SHIPPING

## INTRODUCING CARGO INTEGRITY GROUP & ITS ASPIRATIONS

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# HISTORY OF CARGO INTEGRITY INITIATIVE

- Cross-industry collaboration success in relation to VGM (amendment to SOLAS Chapter VI, Part A, Regulation 2)
- Recognition that gross mass, while important, is but one part of broader cargo transport unit (CTU) packing process
- Growing governmental concern over transfer of invasive plant and animal species in intermodal supply chain



# RATIONALE FOR CARGO INTEGRITY INITIATIVE

**66%**

TT Club analyses show that 66% of incidents related to cargo damage are caused or exacerbated by poor packing practices

This includes such things as:

- *load distribution*
- *cargo securing*
- *classification*
- *documentation*
- *declaration*
- *ineffective data transfer*

**\$6bn**

Cost to the transport and logistics industry estimated in excess of USD6 billion annually



# SOURCES OF KNOWLEDGE ABOUT PACKING

## Historic development of guidance

- Cargo superintendents
- Mariners & shipping lines
- Insurance companies
- Intergovernmental initiatives

## Challenges

- Body of expertise
- Accessibility of guidance
- Trade developments



# WHERE IS THE CTU CODE?

## Status & awareness

- Approved by IMO/ILO/UNECE (MSC.1/Circ.1497 & MSC.1/Circ.1498)
- Code 45pp; Annexes 100pp; Informative Material 175 pp
- Due diligence (MSC.1/Circ.1531)

## Cracking the Code

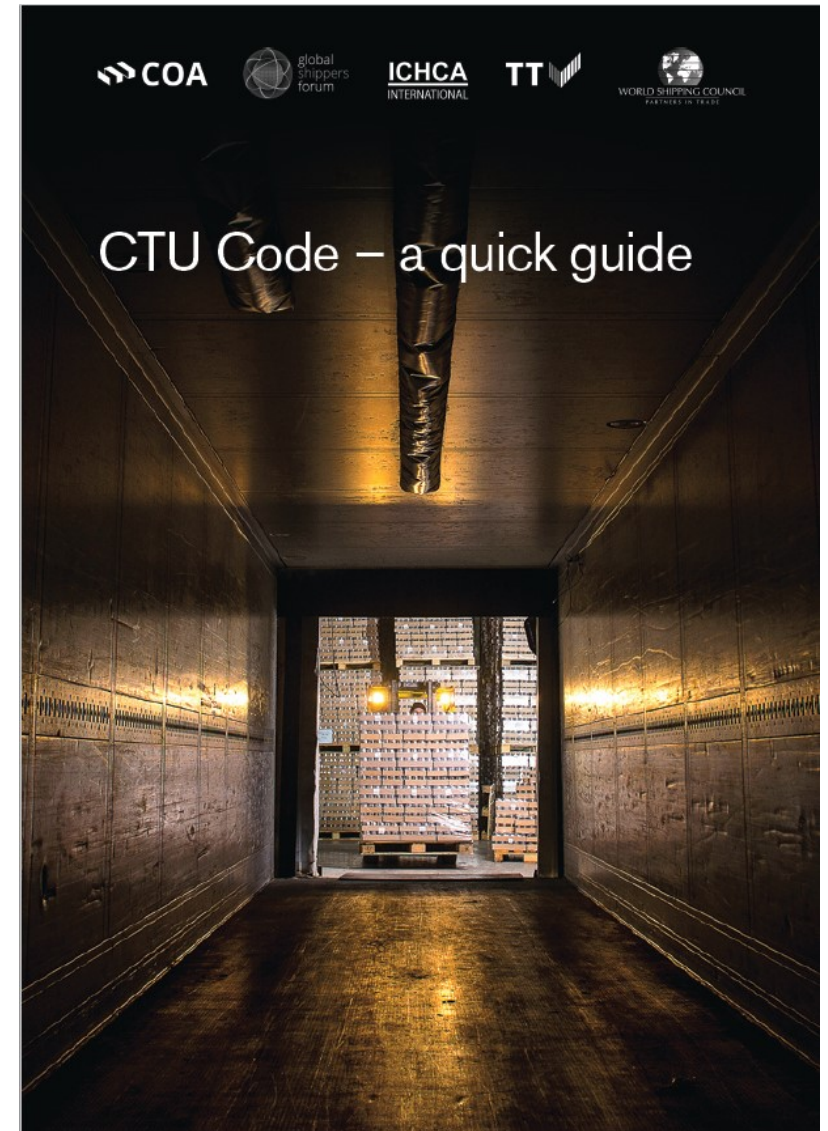
- Key requirements (Do's & Don'ts) [3]
- Chains of responsibility [4]
- Packing & Securing [9 / A7 / IM5&6]

<https://www2.unece.org/wiki/display/TransportSustainableCTUCode/CTU+Code>




# INTRODUCING 'CTU CODE – A QUICK GUIDE'

- Creating a 'route map' to aid understanding & implementation
- Depicting complex relationships typical to global CTU supply chain
- Simplified process guidance, including:
  - ✓ *Planning and preparation*
  - ✓ *General safety (e.g. enclosed space entry)*
  - ✓ *Checking the CTU*
  - ✓ *Dealing with Dangerous Goods*
  - ✓ *Effective packaging*
  - ✓ *Principles & practice of packing*
  - ✓ *Securing*
  - ✓ *Completion checks*
  - ✓ *Receipt & unpacking*



# CONTAINER PACKING CHECKLIST

- Specific for intermodal freight containers
- Clear process checklist for safe packing & avoidance of pest contamination based on CTU Code
- Sequences main check-points from container packer's perspective
- 'Yes/No' answer format. Successful completion allows dispatch of container.
- References to relevant CTU Code source material for supervisors to consider
- Copyrighted material but free to use in unmodified form.







## Container packing checklist

A checklist for the safe packing and avoidance of pest contamination of freight containers!

Instructions: Complete the checklist for each container to be packed. If ANY of the answers are "NO", stop packing, alert your supervisor. DO NOT dispatch the container.

	YES	NO	N/A	CTU Code reference <sup>1</sup>
<b>The packing area</b>				
1 Is the type of container appropriate for the cargo to be carried?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch 7
2 Is the container positioned so that it can be accessed safely?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch 8.3 / Annex 5 S2
3 Have steps been taken to avoid contamination of the packing area by pests?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch 8.2.4 / Annex 8
4 Has a packing plan been prepared showing the arrangements of goods in the container?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Annex 7 S1
5 Are the maximum permitted payload limits of the container sufficient for the intended load?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Annex 4 S2
6 Do all timber pallets, dunnage or other wood packing material meet ISPM-15 standards and show the required markings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Annex 7 S1.14
7 Have staff assigned to pack the container been trained to understand the practices of safe packing and securing and avoidance of pest contamination?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch 13 / Annex 10
<b>Container condition</b>				
8 Is the container exterior free from soil or other visible infestation by pests?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch 8.2.2.9 / Annex 8
9 Is the container exterior in good condition, and not significantly distorted, cracked or bent?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch 8.2.2
10 Does the container have a valid CSC Approval Plate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch 8.2.1 / Annex 4
11 Is the container interior free from signs of damage, signs of water ingress, rust, residues, stains or debris?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch 8.2.3 / Annex 8
12 Is the container interior free from soil or other visible infestation by pests?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ch 8.2.4 / Annex 8
<b>Packing the container</b>				
13 Is the cargo to be packed free from soil or other visible infestation by pests?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Annex 8
14 Has the heavier cargo been packed at the bottom of the container with any lighter weight cargo on top?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Annex 7 SS.2.3
15 Is the cargo distributed evenly across the floor of the container to spread the load?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Annex 7 SS.1
16 Is the centre of gravity approximately in the centre of the container?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Annex 7 SS.1.4
17 Has the cargo been packed in approximately even layers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Annex 7 SS.2
18 Have packages with package orientation labels been stowed the correct way up?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Annex 7 App 1 S3
19 Has locking, blocking or lashing been used to prevent the cargo from sliding and tipping in the container in any direction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Annex 7 S2

# ACCESSIBILITY TO QUICK GUIDE & CHECKLIST

- Freely available on partner websites, such as <https://www.ttclub.com/loss-prevention/cargo-integrity/>
- Aspiration to translate to all 'official' UN languages
  - ✓ Chinese (Nov 2020)
  - ✓ Spanish (Mar 2021)
  - ✓ Arabic (May 2021)
  - ✓ Russian (Jun 2021)
  - ✓ French (TBA)
- Please disseminate widely!





# CARGOES OF CONCERN

**Seeking alerts & guidance concerning risks arising from specific commodities**

## CATEGORY A

*reactive hazard that may lead to fire*

## CATEGORY B

*risks during clean-up &/or health risks*

## CATEGORY C

*liable to cause damage to containers &/or other cargo*



Aim to enhance awareness globally of sound guidance on good practice






# INVASIVE PESTS

-  plants, plant products, and plant debris
-  seeds
-  soil
-  beetles, moths, wasps, and bees; snails, slugs, ants, and spiders
-  mold and fungi
-  Insect and bird droppings or waste
-  egg masses
-  animals, animal parts, blood, excreta, and reproductive components or parts thereof
-  other contamination that shows visible signs of harboring pests

**1 Container depot**  
DEPOT EMPLOYEES



GATE IN	GATE OUT
<i>Interior and exterior container surfaces</i>	
Sweep, vacuum, or wash container to remove visible contaminants	Sweep, vacuum, or wash container to remove visible contaminants or substitute with a clean container
	

**2 Packing location**  
SHIPPER OR PACKER



UPON ARRIVAL	DURING PACKING	WHEN PACKING IS COMPLETE
<i>Interior and exterior container surfaces</i>	<i>Interior and exterior container surfaces and cargo</i>	
Reject container or sweep, vacuum, or wash container to remove visible contaminants	Clear the cargo staging and packing area to remove visible contaminants.	The container and its cargo should be free of visible pest contamination when packing is complete
	Avoid placing containers on grassy areas or soil or under bright light	
	Check containers and cargo regularly for visible signs of pest contamination and clean as needed	
	Where appropriate, use baits, traps, or barriers to keep pests out of the cargo staging and packing area	




**6 Unpacking location**  
CONSIGNEE

UPON ARRIVAL	DURING UNPACKING AND BEFORE RETURNING TO DEPOT
<i>Exterior container surfaces</i>	<i>Interior container surfaces and cargo</i>
Wash container to remove visible contaminants or report visible contamination to responsible authority* as required	Sweep, vacuum, or wash container to remove visible contaminants; use other methods as appropriate to remove visible contaminants from cargo
	Avoid placing containers on grassy areas or soil or under bright lights
	Check containers regularly for visible signs of pest contamination and clean as needed
	Where appropriate, use baits, traps, or barriers to keep pests out of clean containers


**3 Export terminal**  
TERMINAL EMPLOYEES

GATE IN	LOADING ON SHIP
<i>Exterior container surfaces</i>	
Report visible contamination to container operator or reject per local protocol	Report visible contamination to container operator
	

**4 Transhipment terminal**  
TERMINAL EMPLOYEES

LOADING AND UNLOADING TO/FROM SHIP
<i>Exterior container surfaces</i>
Report visible contamination to container operator or responsible authority* as required


**5 Import terminal**  
TERMINAL EMPLOYEES

UNLOADING FROM SHIP
<i>Exterior container surfaces</i>
Report visible contamination to container operator or responsible authority* as required



\* Local office of the country's National Plant Protection Organization or Animal Quarantine Organization

CONTACT US

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<http://www.fao.org/documents/card/en/c/ca7963en/>



# COLLABORATING FOR CULTURAL “STEP-CHANGE”

## Working towards industry wide change

### ➤ Call to action

- Recognition of the scale of the challenge
- Galvanising “fragmented” stakeholders
- Reconciling diverse interests
- Legal & operational innovation

### ➤ Cargo Integrity [#Fit4Freight] initiative

- Promoting awareness & adoption of the CTU Code
- Seeking changes in regulatory requirements
- Monitoring of CTU packing performance
- Working with other industry & governmental stakeholders



# Thank you

## Any questions?

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