
**Traceability of crustacean products —
Specifications on the information to
be recorded in captured crustacean
distribution chains**

*Traçabilité des crustacés — Spécifications relatives aux
informations à enregistrer dans les chaînes de distribution de
crustacés issus de la pêche*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO 18537:2015](https://standards.iteh.ai/catalog/standards/sist/93336d33-5130-4a47-8c35-f51bb9e16d81/iso-18537-2015)

[https://standards.iteh.ai/catalog/standards/sist/93336d33-5130-4a47-8c35-
f51bb9e16d81/iso-18537-2015](https://standards.iteh.ai/catalog/standards/sist/93336d33-5130-4a47-8c35-f51bb9e16d81/iso-18537-2015)



iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO 18537:2015

<https://standards.iteh.ai/catalog/standards/sist/93336d33-5130-4a47-8c35-f51bb9e16d81/iso-18537-2015>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2015, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

	Page
Foreword.....	iv
Introduction.....	v
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Abbreviations.....	2
5 Principle.....	3
6 Requirements.....	4
6.1 Identification of the units traded.....	4
6.2 Recording of information.....	4
6.3 Capture.....	5
6.4 Vessel landing businesses and first sale.....	8
6.5 Processors.....	10
6.6 Transporters and store operators.....	14
6.6.1 Live crustacean.....	14
6.6.2 Crustaceans other than live.....	16
6.7 Traders and wholesalers.....	18
6.8 Retailers and caterers.....	20
6.9 Bringing in materials from outside the domain.....	22
Bibliography.....	24

<https://standards.iteh.ai/catalog/standards/sist/93336d33-5130-4a47-8c35-f51bb9e16d81/iso-18537-2015>
 ISO 18537:2015

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 234, *Fisheries and aquaculture*.

ISO 18537:2015

<https://standards.iteh.ai/catalog/standards/sist/93336d33-5130-4a47-8c35-f51bb9e16d81/iso-18537-2015>

Introduction

There are increasing demands for detailed information on the nature and origin of food products. Traceability is becoming a legal and commercial necessity.

The ISO definition of traceability concerns the ability to trace the history, application, and location of that which is under consideration, and for products this can include the origin of food materials and non food parts thereof, the processing history and the distribution and location of the product after delivery. Traceability includes not only the principal requirement to be able to physically trace products through the distribution chain, from origin to destination and vice versa, but also to be able to provide information on what they are made of and what has happened to them. These further aspects of traceability are important in relation to food safety, quality, and labelling.

The scheme specified in this International Standard does not demand perfect traceability, i.e. that a particular retail product should be traceable back to a capture operator and batch of origin. Pragmatically it is recognized that mixing of animals or materials is often commercially necessary at a number of stages in the distribution chains, e.g. in grading at first sale prior to sale and in the processing of raw materials into products. As a result there will be occasions where whole chain traceability of materials and products is neither possible nor commercially practical. These limitations are to be recognized and taken into consideration when auditing against this International Standard and are not to preclude compliance so as to disadvantage otherwise compliant operators. Where such mixing necessarily occurs, the food business shall generate a trade unit or units only from the point that identification of units is possible. The requirement for traceability is that the business records the IDs of created or received trade units that may be input into each subsequently created unit thereafter, and vice versa. The particular product or products are then traceable through the supply chain (as far as is practical) to generate information on the maximum number of stages of the chain as possible.

Given the variety of crustacean products and of their distribution chains that operate within and between different countries, and varying legal requirements, the information specifications cannot itemise all the information that may possibly be required in every situation. This International Standard provides a generic basis for traceability. Flexibility is allowed for businesses to record further information, in their own non-standardised files, but keyed to the same unit IDs.

The information remains in the ownership of the food business that generated it but is available when required by law for the purposes of traceability (in the event of a food safety problem) or by commercial agreement between businesses. The structure, names, and content of the information is standardised so that it can be readily communicated from business to business through the distribution chains, ensuring common understanding of terms and meanings.

Commercial arrangements for businesses to communicate information through the distribution chains are to be encouraged, particularly for the information desired by the trade to be visible at the various transaction points in the chains, but that is not the subject of this International Standard.

Though this International Standard is designed with electronic representation and communication of data in mind, the specifications may be met by paper systems.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO 18537:2015

<https://standards.iteh.ai/catalog/standards/sist/93336d33-5130-4a47-8c35-f51bb9e16d81/iso-18537-2015>

Traceability of crustacean products — Specifications on the information to be recorded in captured crustacean distribution chains

1 Scope

This International Standard specifies the information to be recorded in wild-caught crustacean supply chains in order to establish the traceability of products originating from wild-caught crustacean. It specifies how crustacean products traded are to be identified and the information to be generated and held on those products by each of the food businesses that physically trade them through the distribution chains. It is specific to the distribution for human consumption of crustacean and their products, from wild-caught through to retailers or caterers.

The types of businesses identified in this International Standard for wild-caught crustacean distribution chains are:

- capture operators;
- landing businesses and first sale;
- processors;
- transporters and store operators;
- traders and wholesalers;
- retailers and caterers;
- logistics including materials brought from other domains.

Any given crustacean distribution chain may be made up of some or all of the above components but not necessarily in the sequence listed.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 8601, *Data elements and interchange formats — Information interchange — Representation of dates and times*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

traceability

ability to trace the history, application, or location of that which is under consideration

Note 1 to entry: When considering product, traceability can relate to the following:

- origin of materials and parts,
- processing history, and

ISO 18537:2015(E)

— distribution and location of the product after delivery.

[SOURCE: ISO 9000:2005, 3.5.4, modified]

3.2

Unique Logistic Unit Identifier

ULUI

any composition established for transport and/or storage that needs to be identified and managed through the supply chain

3.3

Unique Trade Unit Identifier

UTUI

smallest unit, which is guaranteed to retain its integrity as it moves from one link of the chain to the next

Note 1 to entry: It is the smallest unit that is kept whole and undivided with no change in content or label/identification.

3.4

crustacean

aquatic animal belonging to the phylum Arthropoda

Note 1 to entry: Arthropoda is a major group of invertebrate organisms characterized by their chitinous exoskeleton and jointed appendages, occurring in marine and freshwaters and on land.

3.5

crustacean product

product prepared out of crustaceans or parts thereof

iTeh STANDARD PREVIEW
(standards.iteh.ai)

4 Abbreviations

ISO 18537:2015

CAC	Codex Alimentarius Commission
EPC	Electronic Product Code, a unique number provided by GS1 used to identify instances of trade items (individual trade units) particularly suited for representation in an RFID chip
FAO	The Food and Agriculture Organization of the United Nations
FBO	Food Business Operator, generic term for someone in the supply chain who processes, sends, or receives relevant trade units or logistic units
GLN	Global Location Number, a 13-digit globally unique number provided by GS1 used to identify parties and physical locations
GMP	Good Manufacturing Practice
GS1	Global non-profit organization dedicated to the design and implementation of global standards and solutions to improve the efficiency and visibility of supply and demand chains globally and across sectors; previously EAN/UCC.
GTIN	Global Trade Item Number, an 8–14-digit globally unique number provided by GS1 used to identify types of trade items (product types)
HACCP	Hazard Analysis Critical Control Points
HS	Harmonized Commodity Description and Coding System
LAT	Latin Name
LU	Logistic Unit

RFID	Radio-Frequency Identification, the use of an object (typically referred to as an RFID tag) applied to or incorporated into a product for the purpose of identification and tracking using radio waves
RFMO	Regional Fisheries Management Organization
SGTIN	Serialized Global Trade Item Number, a unique number provided by GS1 used to identify instances of trade items (individual trade units) by extending the GTIN
SSCC	Serial Shipping Container Code, an 18-digit globally unique number provided by GS1 used to identify logistics units
TSN	Taxonomic Serial Number
TU	Trade Unit
UI	Unique Identifier
ULUI	Unique Logistic Unit Identifier
UTUI	Unique Trade Unit Identifier

5 Principle

The fundamental principle of chain traceability is that trade units (TU) shall be identified by unique codes (UI). This code may be globally unique in itself (for instance, the GS1 SGTIN or EPC numbers) or it could be unique in that particular scope only which means that it should be no other TUs in that part of the chain that may have the same number. If the scope (the product type, the company, the chain, the sector, the country, or similar) is assigned a globally unique number, the combination of the globally unique scope number and the locally unique TU number shall constitute a globally unique identifier for the TU.

NOTE 1 The UTUI term is introduced to indicate a TU identifier which is, or might be, made globally unique.

Trade Units (TUs) may be grouped together to make Logistic Units (LUs) or LUs may be grouped together to make higher level LUs. A fundamental principle of chain traceability is that logistic units shall be identified by a unique code. This code shall be a national code which may be globally unique in itself (similar to the GS1 SSCC code) or it could be unique in that particular scope only, which means that there should be no other LUs in that part of the chain that may have the same number. If the scope (the product type, the company, the chain, the sector, the country) is assigned a globally unique number, the combination of the globally unique scope number and the locally unique LU number shall constitute a globally unique identifier for the LU.

NOTE 2 The ULUI term is introduced to indicate a LU identifier which is, or might be, made globally unique.

The key to the operation of this traceability scheme is the labelling of each unit of goods traded, whether of raw materials or finished products, with a unique ID. This shall be done by the food business that creates each unit. Businesses that transform units, such as processors who convert the units of raw materials received into the products dispatched, shall create new units and shall give them new IDs.

As indicated above, the simplest way of implementing UTUIs and ULUIs is to use the GS1 SGTIN/EPC and SSCC codes. This practice is recommended, but is not mandatory. The central principle behind this standard is that businesses which create TUs or LUs should assign unique numbers to them.

Each of the food businesses that create or physically trade in those units, throughout the distribution chains from catcher through to retailer or caterer, shall generate and hold the information necessary for traceability. The information is to be held on paper or electronically keyed to the unit IDs.

6 Requirements

6.1 Identification of the units traded

Businesses that bring in supplies of captured crustacean products from outside of the domain of the specifications and trade them onwards shall identify each unit traded and record associated information elements as indicated in [Table 3](#) to [Table 10](#).

6.2 Recording of information

To distinguish between the different categories of information, all information elements are classified as either “shall”, “should”, or “may”, with definition (see [Table 1](#)).

Table 1 — Classification of informative elements

	Definition	Explanation
“shall”	This category contains recordings related to identifiers and transformations that is necessary in order to trace the history, application, or location of an entity. This means the unique identity of trade and logistic units, as well as the dependencies between the identifiers of inputs and outputs in a process.	“shall” elements are data elements that are deemed necessary to record to ensure that traceability is possible. Data elements relating to product properties are not in this category, even if these properties are essential for other purposes like product documentation or food safety.
“should”	This category contains parameters that describe and provide supporting information on the units being traced. Common parameters required by law, commercial requirements, or good manufacturing practices are recorded, but only where an established international format or data list for the value exists.	This includes parameters like “species”, “production date”, etc. If certification according to this International Standard is to happen in the future, the “should” parameters are to be considered.
“may”	This category contains parameters that describe and provide supporting information on the units being traced. It contains parameters that are not part of the “should” category, but that may still be useful or relevant to record. It also contains parameters that may be deemed important, but where no established international format or data list exists.	The “may” category is informative only, and it is included to enable use and uptake of the standard. If certification according to this International Standard is to happen in the future, the recording of “may” parameters are not to be considered when evaluating adherence. The list of “may” elements is not definitive or exclusive, it is by design extendible, and the threshold for including new elements in this category is low.

Businesses that physically trade in crustacean products shall generate and hold the required information, appropriate to the type of business, for each of the units traded.

The detailed information requirements are tabulated in [Table 2](#).

Table 2 — Information requirements to be recorded by the different businesses

Food Business Operator (FBO) Type	Table	Data prefix ^a	Receive	Transform	Create/Produce	Dispatch
Capture operators	3	CFV	—	Yes	TU / LU	TU / LU
Landing businesses and first sale	4	CLA	TU	—	TU / LU	TU / LU
Processors	5	CPR	TU / LU	Yes	TU / LU	TU / LU
Live crustacean transporters	6.1	CTR	TU / LU	Yes	TU / LU	TU / LU

^a For the purpose of unique identification to establish an extendable framework for data element identification, each table has been identified with a three letter alphanumeric code. This code plus three digits is used to give a unique number to each data element.

Table 2 (continued)

Food Business Operator (FBO) Type	Table	Data prefix ^a	Receive	Transform	Create/Produce	Dispatch
Transporters and cold store operators for crustaceans other than live	6.2	CTS	TU / LU	No	LU	TU / LU
Traders and wholesalers	7	CTW	TU / LU	No	TU / LU	TU / LU
Retailers and caterers	8	CRC	TU / LU	Yes	TU / LU	-
Bringing in materials from outside the domain	9	COT	TU / LU	—	TU / LU	TU / LU

^a For the purpose of unique identification to establish an extendable framework for data element identification, each table has been identified with a three letter alphanumeric code. This code plus three digits is used to give a unique number to each data element.

The information specifications separately tabulate the information to be recorded by each of these types of business. Some businesses may carry out the functions of more than one of the types listed, for example, distribution businesses may act as wholesalers and as transporters, in which case those businesses shall record the relevant information requirements for each of the functions carried out.

NOTE 1 This International Standard is limited in scope to the distribution for human consumption of crustacean and their products. The captured crustacean information specifications are substantially the same from processing onward.

Pragmatically it is recognized that some supplies of crustacean products and supplies of ingredients, etc., will come from outside of the domain and may lack the required IDs and information records. To accommodate this, a business that brings in crustacean and materials from outside of the domain is required to generate and hold the key information necessary for the traceability of the units brought in, and if they are to be traded on, to label those units with the required IDs.

NOTE 2 These specifications are designed with electronic representation and communication of data in mind, but this is not a requirement when using the standard. The specifications might also be met by paper systems.

Note that the specification is for data to be generated, recorded, and stored at the respective link. For all links, relevant data shall be generated in a previous link in the supply chain and passed along with the trade unit/logistic unit.

NOTE 3 In these tabulations, there is no repetition of the information originally recorded to describe the units created and their history, although businesses receiving those units later in the distribution chain will often need some of that information. The information is keyed to the unit IDs and can be supplied by commercial agreement between the businesses without having to re-input the data.

6.3 Capture

For the purposes of this International Standard, *capture* means commercial fishing activities with or without vessel which can be motorized or not, with mechanized or manual devices and that catch crustaceans and transport it to the point of discharge. Crustacean may also be frozen on fishing vessels. Fishing vessels may carry out their own discharging operations that may include grading, weighing, and boxing, prior to dispatch to the next food business. Alternatively, the food business operator may discharge from the fishing vessel.

The trade units created by capture operators can range from single crustacean or boxes of graded crustacean including live crustacean that have been individually/collectively labelled by the operators, to the fish hold for passing on to the next food business.

In practice some of the information elements specified below may be recorded linked to the trips and fishing grounds/location. The information so recorded shall be linked to the trade unit (the UTUI) from the capture operators.

Fishing vessels such as factory vessels or freezer vessels that carry out further processing operations such as pre-processing or freezing shall be considered both as *capture operator* and *processors*.

Table 3 — Detailed information requirements for capture operators

Data element		Description	Examples	Categorization		
				Shall	Should	May
CAPTURE OPERATOR						
CFV101	Food business ID	Unique national identification number for the organization plus country prefix, as well as name and address of the food business that operates the vessel and/do capture fishing	FSI, Kochangady, Cochin-682002, Kerala, India	x		
CFV102	Vessel ID/capture fisher ID	Flag state, name and registration number of the vessel/registration number of the fisher	Chandrasagar, JFD: 160,Gujarath	x		
CFV103	GMP certification	Names of fish quality or food safety GMP schemes by which vessel is certified	Vessel HACCP			x
CFV150	(unassigned)	Further information elements that describe the vessel, linked to vessel ID				x
FOR EACH TRADE UNIT CREATED						
Identity						
CFV201	Trade unit ID	UTUI	500653005555555555	x		
Description						
CFV202	Type of unit	Description of physical type of unit (single crustacean, box, tank, hold, block or package of crustacean, etc.)	Box		x	
CFV203	Net weight or number	Recorded as a weighed or estimated quantity of crustacean (kg)	Estimated 11-15, 21-25 per kg		x	
CFV204	Species	LAT - followed by Latin name, or FAO - followed by FAO 3alpha code, or TSN - followed by Taxonomic Serial Number (may be repeated if several species)	LAT- <i>Fenneropenaeus indicus</i> FAO-PNI TSN- 551579		x	
CFV205	Area/country of origin	FAO area/RFMO area for marine crustacean or country of origin for crustacean from inland waters, or more specific location	51 or 57	x		
CFV206	Product form	Whole, peeled deveined, peeled undeveined, peeled tail-on, etc.	Whole			x
CFV207	Size grade	Nominal weight (kg) or length (cm) range, or ungraded or count	11-15, 21-25 per kg or 10 nos per box			x
CFV208	Product condition	Live, chilled or frozen	Frozen/chilled/live			x
Production history						
CFV209	Date of capture in the case of factory vessels or date of landing in the case of other vessels or first sale	Preferably recorded as date when crustacean were captured (ISO 8601 format)	Captured 2010 - 10 - 29 or Landed 2010 - 10- 31	x		
CFV210	Fishing method/Capture fishing	Trawl, lines or net, etc. including capture method (FAO alpha code)	OTB, TBS			x
CFV211	Trawl or soak time	Time (hours) between setting fishing gear and bringing it back aboard	4 h			x
CFV212	Catch certification scheme	Name of scheme by which fishery is certified.	MPEDA catch certificate			x