



# **Guidelines for the Carriage of Hides & Skins in Containers**

**A Publication of CINS (the Cargo Incident Notification System)**

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# INTRODUCTION

## Background

This Guideline for the Carriage of Hides & Skins in Containers has been prepared by a Working Group comprising Members of CINS (the Cargo Incident Notification System).

Approximately 7 million tons<sup>1</sup> of raw hides are generated by slaughtering animals like cows and sheep. These hides will be processed and transported around the world until it is finished leather.

The carriage of hides or skins in general purpose containers is creating several problems. Improper container preparation may cause the leaking of corrosive brine during transport. The leaking brine damages the container floor and painting, contaminates containers stowed underneath or nearby, corrode ship's decks and fittings, influences the supply air of reefer containers nearby and creates a very strong foul odour and holds a potential health risk from bacteria, infection, putrefaction and woodworms.

The intention of this document is to reduce claims from the carriage of hides and skins by ensuring that it is properly packaged, declared and carried.

## CINS – Cargo Incident Notification System

CINS is a shipping line initiative, launched in September 2011, to increase safety in the supply chain, reduce the number of cargo incidents on-board ships and on land, and highlight the risks caused by certain cargoes and/or packing failures. Membership of CINS comprises over 65 percent of the world's container slot capacity.

CINS permits analysis of operational information on all cargo and container incidents which lead to: Injury or loss of life, loss or serious damage of assets and environmental concerns. Data relating to any cargo incident on-board a ship, in terminals etc. is uploaded to the CINS database. The data includes information on: Cargo type, nature, packaging, weight; Journey (Load and Discharge ports); Type of incident and root cause.

W: [www.cinsnet.com](http://www.cinsnet.com)

### Acknowledgements

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- Maersk Line
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- TT Club

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<sup>1</sup>[http://www.fao.org/fileadmin/templates/est/COMM\\_MARKETS\\_MONITORING/Hides\\_Skins/Documents/Market\\_review\\_hides\\_and\\_skins\\_-\\_2008.pdf](http://www.fao.org/fileadmin/templates/est/COMM_MARKETS_MONITORING/Hides_Skins/Documents/Market_review_hides_and_skins_-_2008.pdf)

# Guidelines for the Carriage of Hides & Skins in Containers

## 1. CARGO ISSUES

### 1.1. Properties

A hide is an animal skin treated for human use. Hides include skins from cattle and other livestock animals. In some areas, leather is produced on a domestic or small industrial scale, but most of the leather production is done on a large scale. Animal hides are stretched, dried and tanned.

### 1.2. Wet salted hides

Wet salted hides are named also as “Salted Bovine Leather”, “Raw Hides”, “Salted Skins”, “Pickled Pelts” or “Splits”. Wet salted hides and skins are a raw product, only temporarily saturated in a brine solution of salt water. This concentrated salt solution ensures protein destroying organisms cannot function. This process takes about 12-18 hours to “cure” (salt) the hides.



However, they are an unstable organic material that may slowly degrade activity, which can be accelerated by increasing temperature especially when sealed inside a shipping container. The raw hides and skins are covered in hair or wool and of course fat and blood with a fair share of insects and bacteria feeding on this food source. By its nature, salted hides and skins will purge the salty brine continually as the product ages and therefore a liner is required in shipping containers to catch this brine purge.

### 1.3. Wet blue hides

Wet Blue hides are named also as blue hides or tanned hides. Wet blue hides and skins have already undergone vigorous cleaning processes, which begin with the soaking of the hides in detergents, various chemical treatments and several salt and water cleaning treatments. All hair and fat and protein have been removed in the tanning process and the hides are chemically stable. Wet blue tanned



leather does not deteriorate in quality and generally does not lose any moisture during storage and transit, because any water is chemically bonded to the collagen proteins in the hides.

## 1.4. Dry salted hides

Dry salted hides are named also as air dried hides. To process them, the flesh side of the hide is covered with salt. After some time, the remaining salt is removed and the hides are dried in the air. As the product does not contain water, no leakage is expected. However, condense water might occur due to climate change during transport.

## 2. CONTAINER SELECTION

### 2.1. Standard Containers

Hides and skins are usually shipped in standard containers. This is feasible if special care is taken during container stuffing and the correct packing material is used, considering the nature of the cargo and the expected temperatures during the transport. All parties involved in the transport chain must be notified about those containers.

### 2.2. Reefer Containers

Shipping hides and skins in reefer containers is another option, especially when the transport passes through the hot, tropical climate zones. Container owners must be consulted for accepting hides in their reefer equipment and if any special preparation is required.

## 3. CONTAINER PREPARATION

Depending on type of hides and skins to be carried, different steps of preparations must be considered.

### 3.1. Wet Salted Hides

Installing a hide liner is required for all shipments of wet salted hides. To minimise the risk of damages to the container, protective liners, made of robust material with sufficient thickness must be used, to catch leakage and withstand mechanical forces during the loading process and during shipping. Experience has shown that a one-piece woven polythene liner of minimum 0,2mm thickness is recommendable, alternatively a liner bag made out of robust plastic, minimum 80gr/m<sup>2</sup>. Other specifications might be suitable as well. Extreme lightweight liners, which can be punctured and torn very easily, are not suitable and must not be used.



Liners should have a bathtub shape and must extend the height of the load at all sides to ensure any liquid is collected. Tie cords of liner should be secured to integrated container tie rings.

Sufficient protection should be placed to avoid the forklift from tearing the liner when entering and moving inside the container. This protection could, for example, be mats made of rubber or plywood.

### 3.1.1. Checking the container

The container is to be thoroughly inspected before the lining is installed. The floor shall not have any protrusions (nails, screws, staples, etc.) that might damage the liner. Rough surfaces shall be covered. Containers with obvious damages like gaping holes should be rejected.

### 3.1.2. Covering the floor

Line floor of container with e.g. ¼ inch cardboard or corrugated plastic of adequate quality thus avoiding any debris can penetrate the liner bag.

Make sure this fits neatly into all corners. A few pieces of tape will be required to stop cardboard from moving towards the centre of the container. Leave a flap of cardboard hanging out past the door end by about 1.5 metres.



### 3.1.3. Lining the container

Line the container with a liner bag suitable for wet salted hides and fix it to the lashing hooks. Push back liner into the corners to avoid any cuttings.



### 3.1.4. Covering the liner

During stuffing of the container, cardboard shall protect the liner bag from being damaged when driving in and out with a forklift and from rough handling of pallets.

Considering above, the floor of the container should be lined with e.g. ¼ inch cardboard above the liner. Make sure this fits neatly into all corners with a few pieces of tape as per step 1 to stop cardboard moving towards the centre of the container. Leave a flap of cardboard hanging out past the door end by about 1.5 metres.



### 3.1.5. Sawdust

Place a sufficient amount of fine grade absorbent sawdust into the container, so that the floor is completely covered. Coarse sawdust or wood shavings are not suitable due to their bad absorbent qualities.





### 3.1.6. Preparation for empty transport

Fold cardboard and liner into the container in a tidy fashion that liners and cardboard do not get damaged when the doors are shut and that it will be easy for the stuffing point to unfold same before stuffing the hides.

### 3.2. Wet Blue Hides

As wet blue hides are generally drier and completely shrink-wrapped and palletised, there is no special container preparation necessary.



### 3.3. Dry Salted Hides

Depending on preparation of the dry salted hides, condense water might occur during the sea voyage due to climate change, which might result in brine leakage. Therefore, the floor of the container should be prepared at least by covering the floor with

- cardboard or
- fine grade absorbent sawdust or
- protective liners extending up walls and doors at least 30 centimetres.

Without proper preparation of containers, rust damage may occur after brief contact, especially with iron/steel. Smelling residues from hides might be difficult to remove from a "normal" container floor.



## 4. STUFFING AND STRIPPING

### 4.1. Stuffing cargo

Hides are stuffed usually on pallets, 2 high and mostly 2 side by side. Depending on the size, there remains void space between the cargo and sidewalls and towards the doors. When cargo shifts, the liner can be torn or humans can be at risk when opening the doors. Therefore, suitable blocking and bracing is to be installed wherever needed.

When special lining is used, the forklift driver must drive carefully so that liner will not be damaged. Plywood plates might be placed onto the liner in the area the forklift is driving on. After stuffing, the free liner ends are to be folded upright to complete the bathtub-shape.



## **4.2. Stripping**

The container should be stripped as fast as possible avoiding unnecessary contamination of the container.

Immediately after completion of stripping the cargo, the liner must be removed carefully to avoid spillage of wet sawdust or any liquid onto the containers floor. If the liner is torn, remove the liner carefully that way minimising the contamination of the container.

The container must be thoroughly cleaned and deodorised. All internal surfaces must be cleaned meticulously. If leakage has occurred inside the container, heavy-grade detergent may have to be utilised to remove any residues.

The container should be ventilated with doors open to assist drying and elimination of odours. Fan assisted drying is recommended in cold weather.

Return the container to owner, when the container is free from any residue, packing material and smell, means in same condition as received or ready for next use of any other cargo.

## **5. LOADING ON BOARD VESSEL**

### **5.1. Booking and announcing**

One of the main concerns is that the ship's crew is not aware of this cargo being on board.

Therefore, it is of utmost importance that all containers containing hides and skins are declared to the shipping line, already at time of booking. This enables the shipping line to arrange proper stowage on board the vessel.

### **5.2. Container Stowage**

Vessel operator/planner must be informed about containers with hides and skins. The recommended stow position is "On Deck" away from any active reefer. It is further recommended to stow containers with hides and skins in a position accessible for cleaning of eventual leaking brine. In case of leakage, the brine and the pungent smell may contaminate other containers and cargoes stowed nearby, especially active reefer containers with open ventilation.

Based on the B/L terms and condition, the carriers may reserve their right to discharge a leaking container at next possible port.

In some areas, a leakage might be considered as a pollutant with penalties for any leakage washed over side.

## Contact Information

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