Global service
built around you

North

Soya Beans – Cargo Damage Claims in China

Soya Beans – Cargo Damage Claims in China

CONTENTS

Introduction

This briefing provides loss prevention information on soya bean cargo damage claims in China. Similar claims can also occur with other grain cargoes. These claims tend to recur on an annual basis associated with the harvest cycle of soya beans.

The purpose of this information is to draw attention to these claims, how they occur, and what steps may be taken to protect your interests in the event of a dispute.

The Problem

Grain cargoes in general – and soya beans in particular – have a risk of going mouldy on board the ship during the voyage. Most cargoes are loaded in apparent good order and condition but there is an inherent vice - the soya beans have a tendency to deteriorate unless cargo loading temperatures are low and average moisture content is low. There are known limits for temperature and moisture content.

Cargoes below these limits are **stable** – they can be stored for a long time without self-heating.

Cargoes above these limits are **unstable** – they are at risk of damage from self-heating.

How the Damage Occurs

Soya beans are stable below 11.5% moisture and 25°C. For a stable cargo at loading temperatures between 25°C and 35°C – the moisture content must be 11.0% or less:

Cargo temperature on loading	Average moisture content	Risk	Probable shelf life	Voyage days Brazil to China
25°C or less	11.5% or less	Low risk – stable	Long – over 40 days	40 days
Between 25°C and 35°C	11.5% or less	Low risk - stable	Long – over 40 days	40 days
Between 25°C and 35°C	11.5% to 14%	High risk – probably unstable	About 70 days to 20 days	40 days
Between 25°C and 35°C	14% or higher	High risk - unstable	Probably 20 days or less	40 days

Soya bean cargo damage claims are frequent because most cargoes are shipped above 11.5% and are loaded at temperatures of 30°C or higher.

Recent cargoes from Brazil have an average moisture content of 12.6% and are loaded in ambient temperatures over 30°C. The risk of self-heating is high. Most cargoes outturn in apparent good order and condition and are accepted without claim. But many cargoes will self-heat before arrival at the discharge port and there will be cargo damage. If the voyage is delayed this risk increases.

Self-heating may result in some or all of the following:

- Increase in cargo temperatures – the cargo temperature is higher than the cargo temperature on loading
- Caking
- Discoloration
- Visible mould

Cargo temperature on loading should not change much during the voyage. An increase in cargo temperature is an indication of self-heating.

Soya Beans – Cargo Damage Claims in China (cont.)

Caking from self-heating.

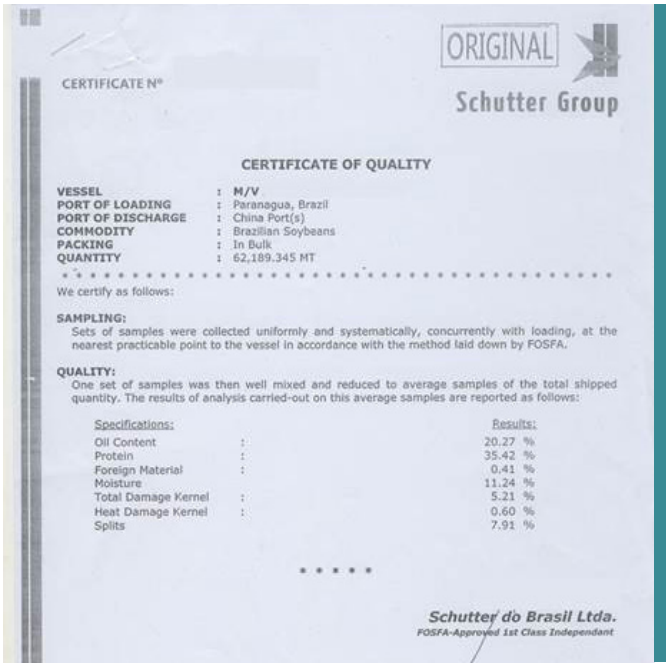
Discolouration from self-heating.

Visible mould from self-heating.

Certificate of Quality

Under the contract of sale the sellers will usually have taken representative cargo samples on loading. These will be tested for average moisture content and the results are recorded in the load-port certificate of quality. This certificate is not usually given to the Master before or after loading but can be produced by cargo interests in the event of a cargo damage claim. The Master should - prior to loading - request a copy of this certificate or get the shippers to state in writing the average moisture content of the cargo.

Example of a certificate of quality:



ORIGINAL

CERTIFICATE N°

Schutter Group

CERTIFICATE OF QUALITY

VESSEL	:	M/V
PORT OF LOADING	:	Paranagua, Brazil
PORT OF DISCHARGE	:	China Port(s)
COMMODITY	:	Brazilian Soybeans
PACKING	:	In Bulk
QUANTITY	:	62,189.345 MT

We certify as follows:

SAMPLING:
Sets of samples were collected uniformly and systematically, concurrently with loading, at the nearest practicable point to the vessel in accordance with the method laid down by FOSFA.

QUALITY:
One set of samples was then well mixed and reduced to average samples of the total shipped quantity. The results of analysis carried-out on this average samples are reported as follows:

Specifications:		Results:
Oil Content	:	20.27 %
Protein	:	35.42 %
Foreign Material	:	0.41 %
Moisture		11.24 %
Total Damage Kernel	:	5.21 %
Heat Damage Kernel	:	0.60 %
Splits		7.91 %

Schutter do Brasil Ltda.
FOSFA-Approved 1st Class Independant

Cargo Samples

At the load port it might be prudent to take **cargo samples** under survey with the charterer/shipper/sellers/receiver's representatives. Taking samples during loading might be difficult. Cargo samples from the surface of the cargo on completion of loading might not be representative – but:

- The average moisture content of the sample can be useful to compare with the certified average.
- Further tests can be carried out on the samples in the event of a claim.
- The samples may show that the cargo has not discoloured significantly from loading to discharging.
- Consider having a local surveyor to obtain samples on loading and to keep a continuous (photographic) record of the loading.

Ventilation

Ventilation records must always be kept to avoid suggestions that ventilation is responsible for cargo damage.

North's guide on cargo ventilation recommends that – for all agricultural cargoes – the three degree rule should be used. Attached is a suggested ventilation log suitable for agricultural cargoes using the three degree rule. It should be noted that

Soya Beans – Cargo Damage Claims in China (cont.)

ventilation can take place at any time – night or day – when the outside temperature is at least three degrees below the cargo temperature on loading. Always be careful if venting at night to ensure that weather conditions will not lead to water ingress.

It is important to note that:

- Self-heating is completely unaffected by ventilation
- Ventilation can, at best, minimise the extent of ship's sweat/ condensation in the headspaces, which affects only the top few centimetres of cargo, but it can neither cause nor prevent self-heating below the surface layer.

For more information see **Loss Prevention Guide - Cargo Ventilation** - which includes advice on:

- The three-degree rule
- Ventilation during rain
- Ventilation during mist and fog
- Ventilation when shipping seas or spray
- Ventilation during the night

How the Claims Develop

Should caking, discoloration, and/or visible mould be discovered at the discharge port in China, China Inspection and Quarantine (CIQ) will take samples for testing. The test results are given to the 'applicant' who will be the claimant. The results are not given to the ship operator. Unfortunately it is not always easy to convince a local court that damage is a result of the inherent characteristics of the cargo. We are often left in a position of seeking amicable settlement regardless of any evidence produced by the ship operator. Requests for large security amounts against threats to arrest and detain the ship are common.

Security requests are typically very much higher than the final settlement figure – a typical claim will settle at about 15% of the original security requested with another 20% being spent on fees. Depending on the charter party clauses it might be possible in some cases for the charterers P&I club to provide security directly or to provide counter security – this would very much depend on:

1. The charter party must incorporate ICA 2011.
2. Charterers having assets available to arrest.
3. If the charter party incorporates ICA 1996 or any previous versions - a recovery claim will only be possible when the initial cargo claim is properly settled. In China this can take at least two years.

Soya Beans – Cargo Damage Claims in China (cont.)

Example of Suggested Ventilation Log

A blank Excel version of this log is available by emailing **loss.prevention@nepia.com**

Ventilation Log

Ship:	Voyage Number:	Port From:	Date Sailed:	Port To:	Date Arrival:	Length of voyage (days):
Amber Nectar	007 JB	Santos	12 April 2016	Dalian	23 May 2016	42

Cargo type: Soya Beans

Mechanical or natural ventilation: Natural

Cargo temperature on loading - this temperature will not change during the voyage

Date	Temperature Outside Air°C		Hold #1 30 °C		Hold #2 30 °C		Hold #3 31 °C		Hold #4 30 °C		Hold #5 32 °C		Hold #6 29 °C		Hold #7 30 °C		Notes
			Temperature Difference	Ventilator Position	Temperature Difference	Ventilator Position	Temperature Difference	Ventilator Position	Temperature Difference	Ventilator Position	Temperature Difference	Ventilator Position	Temperature Difference	Ventilator Position	Temperature Difference	Ventilator Position	
12-Apr-19	0400h	25 °C	-5	C	-5	C	-6	C	-5	C	-7	C	-4	C	-5	C	Fumigation
	0800h	27 °C	-3	C	-3	C	-4	C	-3	C	-5	C	-2	C	-3	C	Fumigation
	1200h	28 °C	-2	C	-2	C	-3	C	-2	C	-4	C	-1	C	-2	C	Fumigation
	1600h	29 °C	-1	C	-1	C	-2	C	-1	C	-3	C	0	C	-1	C	Fumigation
	2000h	27 °C	-3	C	-3	C	-4	C	-3	C	-5	C	-2	C	-3	C	Fumigation
	2400h	25 °C	-5	C	-5	C	-6	C	-5	C	-7	C	-4	C	-5	C	Fumigation
13-Apr-19	0400h	24 °C	-6	C	-6	C	-7	C	-6	C	-8	C	-5	C	-6	C	Fumigation
	0800h	25 °C	-5	O	-5	O	-6	O	-5	O	-7	O	-4	O	-5	O	Start 0900h
	1200h	26 °C	-4	O	-4	O	-5	O	-4	O	-6	O	-3	O	-4	O	
	1600h	26 °C	-4	O	-4	O	-5	O	-4	O	-6	O	-3	O	-4	O	
	2000h	24 °C	-6	O	-6	O	-7	O	-6	O	-8	O	-5	O	-6	O	
	2400h	23 °C	-7	O	-7	O	-8	O	-7	O	-9	O	-6	O	-7	O	
14-Apr-19	0400h	23 °C	-7	C	-7	C	-8	C	-7	C	-9	C	-6	C	-7	C	Stop 0530h heavy rain
	0800h	24 °C	-6	C	-6	C	-7	C	-6	C	-8	C	-5	C	-6	C	Start 1145h
	1200h	25 °C	-5	O	-5	O	-6	O	-5	O	-7	O	-4	O	-5	O	
	1600h	24 °C	-6	O	-6	O	-7	O	-6	O	-8	O	-5	O	-6	O	
	2000h	24 °C	-6	O	-6	O	-7	O	-6	O	-8	O	-5	O	-6	O	
	2400h	23 °C	-7	O	-7	O	-8	O	-7	O	-9	O	-6	O	-7	O	

More Information

Any member who would like to discuss these claims in more detail should call +44 191 2325221 and ask for loss prevention or email **loss.prevention@nepia.com**.

Thanks to **Brookes Bell Group** for providing assistance with this briefing.

Disclaimer

Published June 2021.