

# CHAPTER 2 - UNDERSTANDING THE HANDLING AND SHIPMENT PROCESS

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## PROTECTING YOUR PRODUCT FROM TRANSPORT HAZARDS

**While you may be able to design, or have designed, a unique export package for your product, consider its fragilities - how can it be damaged?**

From the standpoint of physical distribution, packaging must contain and protect the product from point of manufacture to point of consumption or use. Handling along the transportation chain can require a very wide range of characteristics and performance from the package. During an export move, all or some of the following hazards can be expected:

- Shock (from dropping, side impacts, etc.)
- Compression (from top loads)
- Vibration
- Changes in atmospheric pressure (in aircraft holds)
- Atmospheric pollution (sulphates in industrial environment, chlorides in marine environment)
- Moisture, water (rain, high humidity, condensation)
- Oxidation
- Extreme temperature (hot or cold)
- Electro-static discharge.

Other hazards may include biological hazards such as infestation (birds, animals, insects) and bacterial spoilage (fungi, moulds, bacteria). Theft, pilferage and vandalism can also occur. Also consider how long it will be between packing the product and receipt by the customer.

Keep in mind that a very fragile item may need costly packaging, or carriage, to ensure safe arrival. If this is the case, consider redesign of critical elements, or have the consignee arrange packaging and shipping.

Loading and unloading hazards arise not only at pick-up and delivery, but also at any intermediate trans-shipment points. Export destinations usually entail greater loading and unloading hazards due to frequency of transshipment. For example, don't assume that a courier will fly your product to the closest airport to your customer; your package may be flown to an American central distribution hub in Cincinnati, then onto Brussels for European Continent sorting, then trucked to a distribution hub in Munich, then delivered to your customer or distributor by small van. The main hazards here are drops and impacts.