



**ZENTNER**  
**SHIPPING PTY. LTD.**

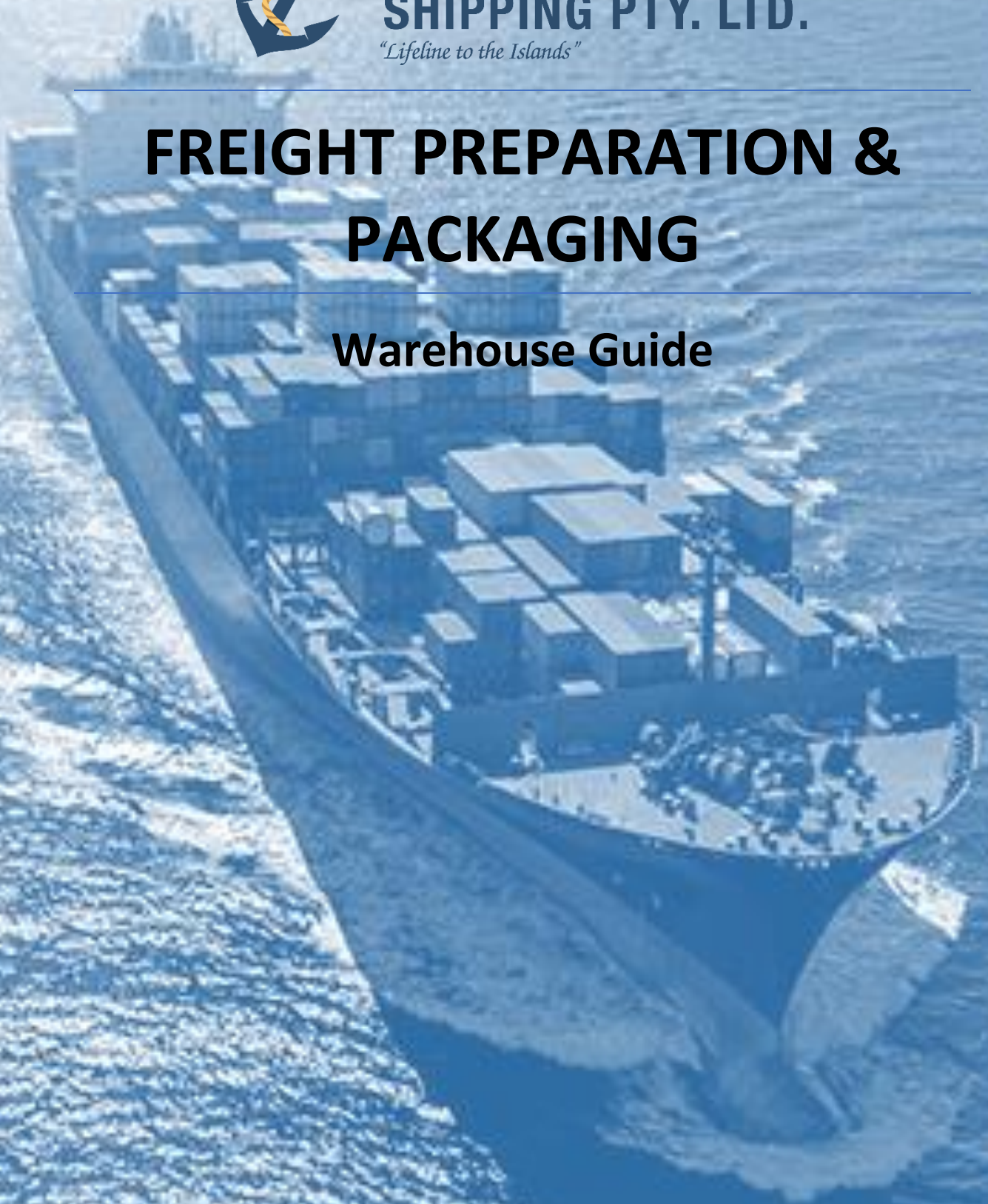
*"Lifeline to the Islands"*

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# **FREIGHT PREPARATION & PACKAGING**

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## **Warehouse Guide**



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## 1. Purpose

Zentner Shipping transports good to and from Christmas Islands and Cocos (Keeling) Islands via our dedicated liner service. All freight travels inside shipping containers.

What may be considered sufficient packing for a local or short delivery may not always suffice for long distance transport in a shipping container.

**Insufficiently packaged consignments present high risk to the goods becoming damaged in transit and a serious hazard to Zentner Shipping warehouse staff when loading and unloaded the goods.**

With this is mind, Zentner Shipping have initiated this Freight Preparation and Packaging document to ensure:

- Compliance to Legislation in relation to Chain of Responsibility and IMO requirements for accurate weight declarations.
- Customer goods will travel and arrive safely.
- The goods can be handled by the freight loaders.
- The goods can be safely lifted on and off transport vehicles and safely loaded into shipping containers.

This document covers particular freight types with photographic examples of acceptable and unacceptable packaging. These examples have been sourced from Zentner Shipping's many years of experience in transporting good to Christmas and Cocos (Keeling) Islands.

## 2. Scope

The scope of this document covers DRY General Goods and Refrigerated Goods. These include; cartons, pallets, skids, bundles, crates, right up to full container loads.

This document is not exhaustive. If a customer is in doubt about any aspect of this standard, or questions about if items being suitably packaged, then please contact Zentner Shipping to discuss these queries.

**Note:** Customers may, from time to time, have packaging requirements which are outside or additional to those described in these standards. Zentner Shipping may accommodate these. In these cases, this needs to be discussed with Zentner Shipping prior to despatch.

### **3. Customer Packing – Key Requirements**

When consigning goods for transport handling or storage, the supplier must ensure that all items in the consignment are prepared, protected and marked in accordance with the following clauses.

- All packaging must be capable of withstanding double stacking and must be able to support any other pallet or items placed on top of it during transport.
- All packaging must be robust enough to cope with lifting on and off transport vehicles and packing into shipping containers as well as being safely transported without rolling, tipping, sliding and spilling.
- Packaging methods used must ensure safe delivery of goods to the warehouse. They must take into account the value of the items and the weight and size limits of cargo that is to be transported.
- All items that are packed to be forklifted, need to have standard forklift access points for the tines that are 210mm wide x 80mm high.
- All items that require a crane to lift must have approved lifting and slinging lugs fitted by the supplier to facilitate safe crane handling.
- Goods are to be generally packaged in an upright and secure position, unless they can travel in a flat configuration.
- Goods must not be contaminated with vermin, soil, mud, grease, oils, or other process contaminants. Where timber is used, either internally and externally, it must be free of bark and insect infestation. Goods, particularly into Western Australia are required to be contaminate free and must be cleaned before transport to prevent any environmental or biological Biosecurity incident.

#### 4. Consigning Goods – Marking / Addressing

All items consigned for transport must be clearly labelled and addressed. Cartons, skids, boxes, bags, crates, bundles or palletised goods must be clearly marked in English on two sides, as follows:

- Receivers name
- Receivers address
- State, Postcode
- If there is more than one items then the item number on the package is preferable, (for example, 1 of 4, 2 of 4, 3 of 4, 4 of 4)
- Dangerous Goods must be labelled according to the Dangerous Goods packaging standard contained in the most recent release of the ADG Code version 7 IMDG Code 2018. Zentner Shipping also requires certain Dangerous Goods to be packaged in a certain way as to prevent damage to itself and the surrounding items.

Any markings should be durable, waterproof, fade resistant and able to withstand prolonged storage or bright sunlight and harsh conditions.

Address tags should be used in place where standard labels cannot be affixed to the goods. For example; bundles, mesh, steel or pipe. Any tags need to be affixed strongly (e.g. wired), and be non-rusting and durable.

To avoid confusion and possible misdirection, all old or previous markings, labels and references must be removed or covered.

##### 4.1 Examples of acceptable markings



## 4.2 Special Handling Instructions on the Goods

If goods are required to be handled in a certain manner, such as; Fragile, Keep Dry, Heavy, This Way Up, etc, then these instructions are to be clearly marked on at least one side of the goods.

Any special lifting points, centre of gravity, or slinging requirements must be clearly marked on the goods.



## 5. Consigning Goods – Packing Methods

### 5.1 Cartons, Boxes

The contents of cardboard cartons or boxes must be able to be supported by the cardboard carton or box. Cartons may be handled several times during the transport cycle therefore need to be strong enough to keep the contents supported and enclosed at all times.



Example: Contents must be packed tightly or blocked preferably with foam or bubble plastic to prevent damage or movement in transit. All fragile goods must be placed in sealed cartons and packed in plastic cushioning, or some equally effective shock absorbent material such as polystyrene foam. Fragile items should not be boxed together with heavy or incompatible items.



Example: Packing paper is used to secure this paint tin in place in the carton.



Example: this shows that these items were not packed adequately enough to prevent movement. Items have punctured and leaked inside the package resulting in the package being broken open.

### **Carton weight and size limits**

Zentner Shipping have set a safe maximum weight and size limit for individual carton handling. No employee, driver or contractor may be called on or permitted to manually handle and item likely to affect his or her health or safety.

A limit is set at less than or equal to 20 kilograms in dead weight for an individual carton.

Additionally, the carton needs to be of a size and dimension that can be safely carried by one person if required to do so.

### **5.2 Pallets**

The consolidation of items onto a pallet by strapping, shrink or stretch wrapping is a very good method to improve the safe handling and transit for multiple items.

Key points to consider when palletising:

- The goods must not overhang the forklift entry points of the pallet.
- Stretch wrapping needs to be properly tensioned to hold the goods in place.
- A board or sheet should be used at the base of a pallet to stop goods falling between the pallet boards.
- Heavy items must be on the base with light items on top.
- Do no stack too high so that the bottom layer items may crush.
- Wrap several layers of stretch wrap at the base of the pallet so that the goods and the pallet are wrapped as one unit.
- Wrap extra layers of stretch wrap around and over the top of the goods to hold the top layers.
- Strapping is recommended (plus shrink-wrapping) for multiple heavy or awkward items stacked on pallets, to prevent movement or collapse.



Example: Well palletised goods. The additional use of strapping and cardboard edges also improves the stability of a stretch wrapped pallet in transit.



Example: Poorly stacked pallet. Pallet is stacked with spaces between the tins and wrapped too tight resulting in the tins collapsing at the top and all coming together.



Example: Poorly wrapped pallet. Stretch wrap needs to be at a high tension and needs to be several layers (not single layered). The pallets here have insufficient layers of stretch wrap which has resulted in the goods shifting during transport and falling over.





Example: Poorly stacked pallet of liquids. Placing a board or sheet at the base of a pallet will assist with an even weight distribution. The bottles of liquid in these cartons have been caused to leak due to the unevenness of the pallet boards and the uneven weight distribution.



Example: Poorly stacked pallet of small cartons. Small cartons have fallen through the gaps in the pallet boards underneath. Placing board or sheeting at the base of a pallet would have prevented this.



Example: Poor quality pallets can lead to product damage. Timber pallets need to have a Safe Weight Limit which is greater than the product it is carrying. Low grade softwood pallets can collapse and boards can come loose as in this example.

**Hardwoods pallets are recommended.**



Example: Poorly stacked bagged product on a pallet leading to damage. Bagged product should be stacked to that it will not overhang, or be caused to overhang a pallet during packing. It is recommended that bagged pallets have:

1. A Sheet at the bottom to prevent sagging
2. Be high tensioned stretch wrapped to prevent movement
3. Preferable to have corner angles for extra strength



### 5.3 Skids

As with pallets, items of skids must be secured to that they will be safe and not move during handling or loading.

The wooden skid itself needs to be sturdy, not damaged and enable a forklift to handle. Packing dense items on a small wooden skid is not recommended.



Example: Loose items placed on skids could result in the items falling from the pallets or moving during loading. Items like this should be boxed or crated.



Example: Correctly packaged carton on skid. This box has been placed on a skid the same size and securely fastened to it resulting in the box not moving on the skid.

Example: Poorly packaged item on a skid. Strapping large and heavy machinery items to small skids can present a large problem during packing. Small softwood timber skids are not appropriate to hold these items with metal strapping and can easily collapse. This item overhangs the pallets and is not centred on the pallets meaning it takes up more room in the container than it should. Items like this should be fully crated and safe to pack into a container.



#### 5.4 Crates

Equipment such as electrical switchboards and panels, office machines and precision instruments, windows and any glass doors should be packed within a crate to prevent impact damage and any movement within the crate.



Equipment and materials must be packed to ensure an even weight distribution within the crate. Where this is not possible, particularly in the instance where a case or crate conceals the internal goods, the supplier must ensure that the centre of gravity and hoisting position are marked on two sides to ensure handling can be done in a safe manner.

Crates are required to have a solid timber structure all over and over the top so that the crate can have items placed on top of it during packing and transport without any risk of collapse to the timber structure.

Importantly, crated contents must be tied down or bolted or blocked to that the items will not be caused to move inside the crate.

Timber crates and cases must be constructed of solid timber (preferably hardwood), and engineered to adequately contain and support the item. Timber crates should have a safe weight limit that exceeds the weight of the contents.



Timber crates are required to have bottom lifting points for forklifting. Forklift pockets needs to be wide enough to receive a forklift tyne and strong enough to be lifted at these points without causing the crate to collapse or warp.



Example: A well crated item. The timber frame is supported by metal strapping. The item is securely fastened inside the crate. The addition of foam to protect the items from moving inside the crate is an improved method to protect the contents and potential damage through impact or movement.



Example: A poorly crated item. This item is not securing crated. The items inside are not protected from external forces and could be damaged if something was to hit it. Additional boards should have been used to protect the item during transport and loading into sea containers.



Example: Poorly restrained item inside the crate. This item has not been restrained securely enough in the crate. It will roll around inside the crate, damage the external faces and could break off fragile parts of the items. When securing items inside a crate the use of eyelets in the corners of the crate or steels/timber supports should always be used. This will stop it from rocking around which could also puncture the crate damaging items around it.

Example: Poorly packaged item. Items like this should be in a fully enclosed crate to ensure proper packing. Exposed metal, paintwork, dials and delicate instruments can easily be damaged during handling and packing so these needs to be enclosed to eliminate the risk of damage.



## 5.5 Machinery

Any machinery such as lawn mowers, slashers, quad bikes, motorbikes, compressors or any ride on machinery should also be packed in crates. The crate should be able to support the weight of items stacked on top of them as well. Crated machinery should be no higher than 2250mm unless otherwise previously organised by speaking to an employee from Zentner Shipping and a maximum width of 2300mm. If the machinery is not in a crate Zentner Shipping will not accept the goods. It is up to the responsibility of the sender to have it crated and delivered to our warehouse. If you require help with crating, please contact us to discuss this further.



## 5.6 Bundles and Lengths

Heavy and long items that do not fit in a case or crate must be strapped with steel strapping to a skid or pallets so they can be forklifted. If packed on a skid then the skid must have a Safe Weight Limit (SWL) that exceeds the weight of the items.



The proper packaging of lengths is imperative to ensure their safe handling and packing. Often these lengths and bundles are required to be lifted by forklifts and placed on the ground which means they need to be protected from impact, scratching or denting.



Packs of timber should be packed with at least one end being square and a minimum of 4 straps and gluts attached. It is very important that the gluts are **no wider** than the pack and all lengths over 5.8m are removed and packed separately as they will not fit inside a container and will go as break bulk or deck cargo. This goes for all building materials. Long lengths of floppy or thin materials may require additional support.



Building products such as hardiflex, plywood, bricks and gyprock, etc should be packed on a **same sized pallet** and strapped with a minimum of 4 straps and corner protection.



A cover sheet should be placed on top of the goods for protection and packs should be kept to a maximum weight of 1 tonne where possible.

Example: These packs of hardiflex are not packed on pallets measuring the same size as the sheets and have been placed on top of another pallet. This means that the client will be charged extra costs to cover the amount of space the pallets are taking up. Different sized sheets should all be stacked together on pallets matching the sheet sizes.



Example: These lengths of timber and sheeting have strapping and gluts attached along the length of the items keeping them secured and easy to pack into the containers. The painted poles have been wrapped in bubble wrap and fragile labels affixed to protect them.





## 5.7 Frames

Purpose-built transport frames must be designed, and manufactured to Australian Standard AS4991 (lifting devices). They must also incorporate load restraints and lashing points.

No modifications must be carried out to the frames other than by the original equipment manufacturers themselves.

If frames have not been manufactured to the above standards, or there is doubt regarding the adequacy of a transport frame, then Zentner Shipping reserves the right to reject the freight.

Glass sheets, bench tops, stone slabs, etc, are best transported in upright frames.

It is a requirement that these frames;

- Are robust enough to carry the goods weight limit
- Frame has bottom lift fork pockets
- Frame has top lift rings. These rings have a safe weight lift limit
- Goods are restrained to the A-Frame
- Goods are packed to absorb vibration

If a frame is made by the client who supplies the items to us then they take full responsibility if the item is damaged either while unloading the goods, packing them into the container or when they are unloaded.

## 5.8 Personal Effects

All Personal Effects that enter the warehouse need to be packaged ready for sea-freight. This means any loose items should be packaged into appropriate contains or cartons and should not exceed a weight of 20kg. Items such as gym weights should be wrapped in cardboard and clearly labelled as HEAVY and stacked onto a small skid if possible. Gym equipment needs to be wrapped in plastic or placed in their original packaging so it can be moved and packed safely. Items of food are to be placed in sturdy cartons and the weight of the cartons kept low. Potting mix is not recommended to be placed inside cartons as this will make the cartons very heavy. Any tools or gardening equipment should be bundled together if possible and wrapped in plastic. If there are liquids packed these should be clearly marked with arrows on the carton showing the correct orientation. Milk crates are not suitable packing containers. There should be a lid on every carton and no items to be protruding from it. Bicycles needs to be placed inside a carton as well with the foot pedals removed and handle bars twisted sideways so it can be packed safely and easily.



## 5.9 Trailers

When delivering dismantled trailers, they need to be packed ready for sea freight.

Simply bringing them to us dismantled in pieces will not do as we need to find a way to secure them inside the container without damaging other items or the trailer parts themselves.

A metal crate or timber crate should be used and the items are to be securely fastened in the crate to avoid them moving. All small items, like fixings or lights, should be packed in a suitable cardboard box and secured inside the crate.

Cardboard boxes that are falling apart should not be used.

Below is an example of how a dismantled trailer should be delivered to us.

As long as the crate it comes in can be loaded on the floor with items placed on top then this will be fine to pack. We will endeavour to pack this as safely as possible.



## 6. Assembled Furniture – for General Transport

Assembled furniture is required to be packaged and wrapped for export freight to a high-quality standard to be accepted for sea container transport.

Assembled furniture should be packed so that there are no exposed surfaces. Items need to be heavily wrapped in blankets, felt, bubble wrap or heavy-duty cardboard. Furniture with readily detachable components should be disassembled and individually packed to minimise any possible packing damage.

Example: These items are inadequately packed. Stretch wrap may not protect the item during handling and transport.



Example: These items are acceptably packaged for export cargo. The items are wrapped with cardboard and blankets and the edges have been protected with cardboard.



## 7. Flat Packed Products including sheets, lengths and board

The handling of flat packs often has to be accomplished by forklifts. Flat packs, therefore should be either strapped to pallets or have bearers (gluts) strapped underneath for forklift access.

When strapping to a pallet or skid the items must not be able to bend below the pallet when lifted but must be supported so that they remain flat.

Flat packs should have a TOP and BOTTOM (SOLID) packing sheet to protect its handling by the forklift or from potential damage to the top of the product when items are stacked or to the bottom of the item.

Example: This product is well packed. Good use of top and bottom packing sheets. It is also advisable that the corners of the items have cardboard or metal edges to protect the product when its being transported or packed.



Example: Poorly packed flat packed items and timber. These items should have a pallet instead of gluts to support them during forklift moving and packing. Since there are so many sheets the packs will bend and the strapping could snap.



Example: These items should be stacked onto a pallet measuring the same size as the items and all other irrelevant pallets removed to reduce packing cost and wasted space.



Example: Being as these are fragile solar panels these should have been stacked onto a pallet of the same size as the products with corner protectors and a hard top. Items like this may have other products placed on top or next to them which could damage them during loading and transport.



## 8. Long Rolls / Poles / Long items

The handling of long rolls or long items often has to be accomplished by forklifts. Rolls are generally fragile in nature and require strong layers of protection around them to prevent any damage when being placed on the ground or into a sea container.

These need to be packaged in a way that stop them from moving when being unloaded and when being packed into sea containers. The use of straps or wooden chocks to support them are highly recommended and this will reduce the chance of damages.

Example: These long pipes are not wrapped or strapped properly to an adequate pallet. They could be damaged or dented when moving and packing. They need to be packed inside either a wooden crate or placed on gluts with cardboard wrapped around them to prevent damage.

Just like these roller doors, the cardboard and plastic are not sufficient enough to protect them during transport and packing. All roller doors **HAVE** to be crated to protect them from being bent or damaged during packing.



Example: These rolls of lawn turf should be crated individually so that each one can be moved without damaging them and packed safely into a sea container. Being as they are also quite heavy; they need to have access to be picked up from the ends of the rolls and stacked on top of each other or have items stacked on top without causing damage.



## 9. Freight with wheels, casters or adjustable feet

Wheels or casters on freight items are very prone to damage as they are not designed for support or for travelling over the varied terrain during freight handling process. Wheels on products like shop fridges or tool chests need to be raised of the ground by placing them on a pallet or if possible, removed.



Example: Adjustable feet are not supported. This washing machine has no protection for the adjustable feet on the bottom of it. These could be broken if they stick out the pallet when the forklift picks it up. Likewise, with the tool chest not having its wheels protected or even placed onto a pallet. If a forklift was to hit one of these wheels when unpacking the product, they could be easily damaged.



Example: Products like washing machines and fridges are best delivered in their original packaging where possible or at best have the product wrapped in cardboard on all sides to protect it when packing. This will mean that the casters or adjustable feet do not become damaged and they can be easily stacked on top of other items without the feet damaging what is below it.



## 10. Engines / Transmissions / Radiators

It is a Zentner Shipping requirement that all motors and engines are packed so that, firstly they are self-supporting in a frame or in a cage and secondly all plugs are tightly done up or the engine is drained of any oil. Also, it is highly recommended that all protruding parts of the motor be taped up and protected so that they do not break off or bend during transport and packing into sea containers.

Example: Inadequate packing of an engine.

All engines need to be crated with all sides and the top being protected and must be able to support other items placed on top. Being as most motors are top heavy, they will be placed on the floor of the sea containers to reduce the chance of it falling over and damaging other products.

All motors should be fully drained of all liquids and any pipes or hoses that protrude from the motor be plugged and protects inside the confinements of the crate.



Example: Inadequate packing of an engine.

Wrapping a motor in stretch wrap does not secure the motor to the pallet. As seen in the photo the small pipe protruding from the motor could be easily broken.



Example: This motor has been properly packaged.

It is protected inside a wooden crate and the motor has been securely fastened inside the crate. It can be easily picked up by a forklift and packaged safely inside a sea container.





## 11. Refrigerated Cargo

Zentner Shipping also pack reefer containers on site. Reefer containers are smaller on the inside to account for the insulation needed in the walls and ceilings to insulate the container. Because of this all pallets delivered need to be on 1100mm x 1100mm or 1200mm x 1000mm plain pallets. We do not exchange CHEP or LOSCAM pallets. Pallets should be no higher than 2200mm to leave enough room above the pallets for air circulation. Items must not overhang the sides or front and rear of the pallets also.

The biggest requirement for reefer containers is the FREEZER items. **ALL PALLETS MUST COME FROZEN.** If any items in the container are not frozen it will ruin all the other items in the container. The freezer containers are meant to keep the items frozen, not freeze them if they are not.

If any items arrive to us thawed or what we feel is not frozen enough they will be rejected.

If you are sharing a reefer all items need to be labelled as it's often not possible to pack all the pallets into a reefer and some may need to be broken down. Zentner Shipping take no responsibility for items that are not marked and broken down to pack. That is the responsibility of the client ordering the items.

## 12. Packing Dangerous Goods

The packaging, marking and transport requirements for the carriage of dangerous goods by Sea Freight shall be in accordance with the latest issue of the IMDG Code. All Dangerous Goods shall be declared by correct shipping name, UN Number, Quantity, Type, Packing Group, and packed in full compliance with the directives of the IMDG Code. Zentner Shipping also require a Dangerous Goods Shipping Document is properly filled out and signed by the supplier.



Postal Address:  
PO Box 37, Melville WA 6956  
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149 Barrington Street, Bibra Lake WA 6163  
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Email: [shipping@zentnershipping.com.au](mailto:shipping@zentnershipping.com.au)  
Website: [www.zentnershipping.com.au](http://www.zentnershipping.com.au)

### DANGEROUS GOODS SHIPPING DOCUMENT

SHIPPER: Jane Doe  
2 Pleasant Street  
Moorville

CONSIGNEE: John Doe  
1 Gaze Road  
Christmas Island

PHONE: 08 9333 2121

PROPER SHIPPING NAME	UN NUMBER	CLASS	SUB RISK	PACKAGING GROUP	TYPE OF PACKING	NUMBER AND SIZE OF PACKAGE IN PARCEL	QUALITY (KG OR LITRE)	MSDS
Batteries, Wet, Filled with acid	2794	8		III	CARTON	2X CARTON 10KG	40KG	X
Aerosols Flammable	1950	2.1			CARTON	12x 500mL	6L	X
Paint	1263	3		III	TIN	2x 1L	2L	

Prepared by: Jane Doe Date: 2/6/2020 Received by: John Smith Date: 3/6/2020

ZS Dangerous Goods Shipping Document

Document Revised - 8 October 2016



It is a requirement of Zentner Shipping that all Dangerous Goods that are delivered to our premises are clearly segregated by their Classification Codes. Flammable liquids and gases need to be packed on separate pallets and clearly marked. No loose items, such as spray cans, will be accepted unless they are adequately packed inside an approved packing container. Simply wrapping them in cardboard or brown paper is not sufficient enough for us to accept.

Batteries need to be packed inside individual cardboard boxes with the terminals protected by a thick cardboard sheet. If there are multiple batteries then they need to be placed onto a pallet or inside a crate if more than one single layer of batteries on a pallet. Each row should have thick cardboard packaging between them to protect the terminals, wrapped together with metal strapping and tightly wrapped in stretch wrap.



Example: These batteries are stacked onto a skid with no protection on the tops. The terminals are exposed and are not in proper cartons. With batteries being so heavy they are always placed on the floor of the sea containers when packing and with the exposed terminals this could lead to them being bent or even broken spilling out the acid inside them.

Example: These batteries have been packed adequately for packing. They are individually packed inside cardboard cartons which protect the terminals. This will also stop any small leaks that may have occurred during transport.



It is also a requirement by Zentner Shipping and under the Guidelines for the Transport of Gas Cylinders – ANZIGA (Australia and New Zealand Industrial Gas Association) that gas cylinders be packaged and transported in an upright position.

Class 2.1 – Flammable and Class 2.3 – Toxic – MUST BE TRANSPORTED IN AN UPRIGHT POSITION.



Example: This packaging method is not acceptable for any gas cylinders. The laid down position and possible overhang on the pallets expose a high risk of the regulators being damaged (causing the cylinder to become a projectile) and movement during handling due to poor load restraint.



The only acceptable method of transporting and packing gas cylinders into a sea container is inside a gas cage. Unless otherwise agreed upon, it is advised to ring to speak to us about what is the best way to deliver gas cylinders.

All gas cylinders delivered to Zentner Shipping need to have their tops protected. This means they should have a screw lid covering the tops or be fully enclosed in a steel transport cage.



Not having the tops covered mean cargo could fall against it causing them to snap or break and this is highly dangerous inside an enclosed sea container.

All other Dangerous Goods need to be packaged in a way to prevent puncture or damaged by any other items. They all need to be clearly labelled with their appropriate Class sticker and any upright labels affixed to the exterior.

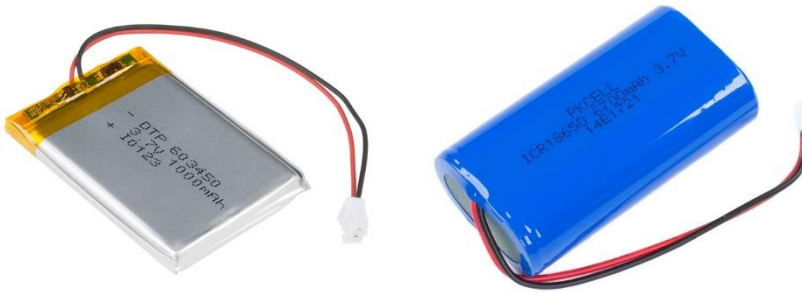


### 13. Lithium-Ion Batteries

Due to the danger of damaged or ruptured lithium-ion batteries while in an enclosed space all lithium-ion batteries need to follow a strict set of rules when preparing them for packaging and sea freight. A damaged, punctured, or high temperature affected battery could cause a fire or small explosion when not properly packaged. Due to this danger all Lithium-Ion batteries need to be packaged in accordance with the new IMDG2020 and ADG7.7 Lithium battery requirements. All lithium cells and batteries must be of a design tested in accordance with UN Manual of Tests and Criteria, part III, subsection 38.3, with the exception for small production run and prototype batteries transported in accordance with Packing Instruction P910 or non -conforming batteries transported in accordance with P908 or P909.

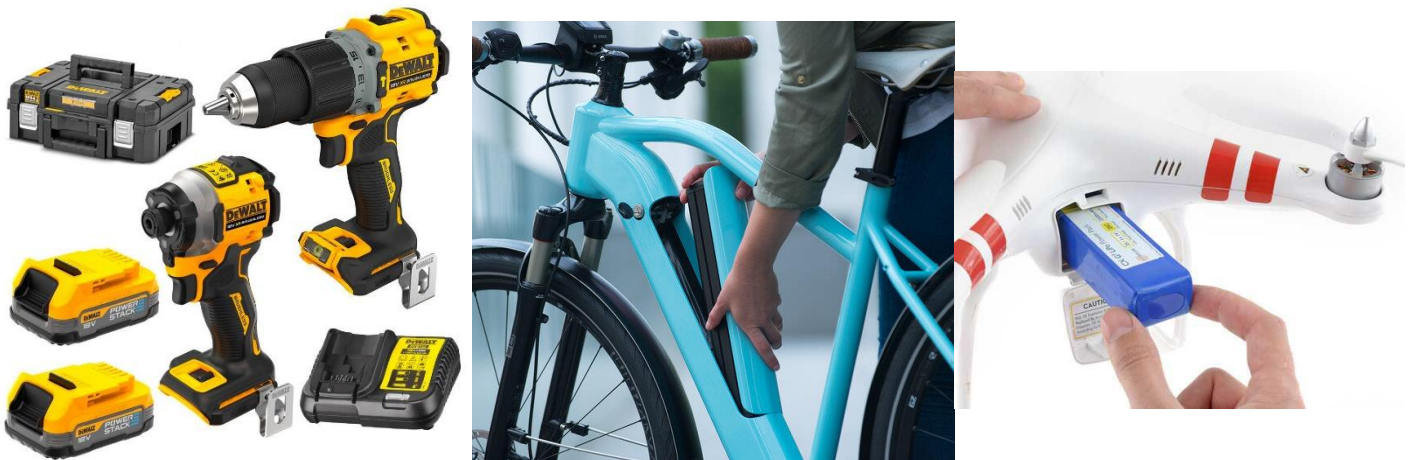
#### 13.1 Lithium-Ion Batteries packed on their own – UN3480

These include power tool batteries, cell phones, power banks, drone batteries and motorbike or car batteries. They should be packaged in a thick-walled box or plastic carton with adequate packaging around the battery to stop it from the possibility of being punctured or damaged. Bubble wrap or packing peanuts should be used inside the box and it needs to be clearly labelled with a Class 9 Lithium Battery DG label. These batteries should be packed separate from all other goods as to reduce the overall charge for Dangerous Goods items.



### 13.2 Lithium-Ion Batteries packed with equipment but not connected – UN3481

Any batteries contained inside a pack of tools or attached to e-bikes or drones will be classed as Class 9 Dangerous Goods. If possible, it is best to separate all batteries and pack separately and securely.



### 13.3 Lithium-Ion Batteries contained in equipment that is connected – UN3481

These include power tools where the battery cannot be removed or e-bikes where the ability to remove the battery is not possible. Items packaged like this will be classed as Class 9 Dangerous Goods. If the battery cannot be removed, then the whole item needs to be marked and labelled adequately and will be charged as a whole item.



#### 14. Definitions and Terms

Bearer	<i>Timber block separating the top and bottom decks of an item of pallet and providing space for entry of tines (forks). Bearers may consist of blocks of continuous beams.</i>
Gluts	<i>Small lengths of timber placed under a long length of timber to raise it off the ground providing space for the entry of tines (forks).</i>
Safe Working Load (SWL)	<i>Is the breaking load of a component divided by an appropriate factor of safety giving a "safe" load that can be carried or lifted.</i>
Skid	<i>A timber pallet smaller than a standard (1160mm x 1160mm) pallet. It has no weight or lift rating.</i>
Blocking	<i>(a) A method of interior packaging that builds up irregularly shaped articles to a regular shape to protect projections from damage, to reinforce weak parts and to maintain objects in fixed positions during transit, by bracing them against each other or against the sides of the container.</i>  <i>(b) An undesired adhesion between touching layers of material, such as might occur due to the effects of pressure, and sometimes temperature, during storage or use.</i>