TRANSPORT AND STORAGE SOLUTIONS FOR EXPLOSIVE PRODUCTS

One4Pack
1.4S Shipping Guaranteed

SHIPPING CAGES FOR AMMUNITION & ENERGETIC PRODUCTS

REDUCE SHIPPING HAZARDS...
REDUCE COSTS...
1.4s SHIPPING GUARANTEED
One4Pack Safety Cages

We have been concerned by the “read across process”, or “grandfather rights” that allow manufacturers to ship ammunition in fibreboard containers, under the UN Hazard Classification Code (HCC) 1.4s; in 2010 we decided to conduct our own testing which involved burning large quantities of ammunition using a clearly defined test procedure. (UN6c test).

After being alerted to the problem, the UK MOD carried out a series of UN 6C-Bonfire tests on all calibres of Small Arms Ammunition (SAA) in 2011. The results of the testing were alarming; Small Arms Ammunition (SAA) that had been transported for years as 1.4s/1.4c, now had to be re-classified by the UK Authority as 1.2C.

In conjunction with the MOD, we have continued, conducting extensive testing which unsurprisingly has confirmed that many ammunition classifications are no longer valid.

UK MOD TEST RESULTS: 2011-2012

Following on from our own extensive test program, a series of independent tests were conducted, by UK MOD, the results of these independent tests confirm that the following calibres of small arms ammunition should be classified accordingly:

All calibres of Small Arms Ammunition (SAA) in any type of cardboard carton, outer and inner containers is 1.2C.

Eastern European manufactured small arms ammunition in wooden outer box and internal hermetically sealed containers is 1.2C.

0.338 inch (8.6mm) rounds linked and carton contained in H83 / M2A1 Ammunition containers is 1.2C

12.7mm (0.50 inch) rounds linked and carton contained in H83 / M2A1 Ammunition containers is 1.2C

7.62mm rounds in cardboard cartons contained in H83 / M2A1 Ammunition containers is 1.2C

The only class of ammunition considered to be classified as 1.4s, are, 7.62mm linked, 9mm, 5.56mm plus all calibres below 5.56mm, but ONLY if packed in H83 / M2A1, metal boxes.

UK MoD-ULS556

As a direct result of all the testing, the UK MOD needed to reduce the Hazard Classification Code (HCC) back to 1.4s. A series of new designs were tested and a safety cage designated ULS556 was developed to reduce this hazard.

Safety

In order for ammunition of any kind to be considered safe in any transport environment, land, sea or air, it must be carried in suitable packaging that reduces the hazard, especially in a fire. The danger of high speed and random ejection of projectiles and metal fragments caused by a fire and the resultant danger posed to fire fighters and the public clearly needs to be avoided. With One4Pack safety cages you have the assurance that in the result of an incident involving your consignment, the cage will safely contain all the energetics and components; reducing the risk to persons and property in the vicinity and first responders will be able to react with confidence and remain safe.

We all have a duty of care to the General Public and to Fire Fighters, Police and Ambulance Crews who have to risk their lives, should such an incident occur.

Security

Where security is an issue we offer a design with a locking mechanism, this design can be used to increase the security of a product, it may not change the hazard class but can be fitted over a pallet of sensitive materials to prevent unauthorised access or pilfering of the contents.

Handling and Storage

Most One4Pack safety cages are supplied flat packed and are easy to assemble, move and stack. Six full size cages can be flat packed to fit on one pallet. Pallets of cages can be stacked 3 high. All components are available separately should items be damaged or lost. It is not necessary to purchase a full cage to replace missing parts. This further improves logistics and reduces cost. We also offer a full refurbishment and replacement service.

A range of storage cages are available, including a rigid design that will allow a full pre packed pallet to be placed inside, immediately reducing the HCC to 1.4s. This is ideal for situations where it is not practical to re pack a full pallet, i.e. at port of entry. This in turn can improve the logistics of transport or storage from the port of entry, reducing costs and increasing safety. If all stored or transported munitions are classified as 1.4s, a reduction in your building and third party liabilities insurance may be possible.

Disposal of Ammunition after Military Operations

The logistical headache, of moving ammunition to and from any military activity is costly, difficult and even unsafe, especially when different calibres or natures of ammunition are involved. The availability of the One4Pack safety cages will remove all these issues.

Ammunition can be safely deployed into any training or operational area, with improved safety and security. Even ammunition that has lost its identity or has exceeded its shelf life can be transported safely and securely as mixed calibres for disposal, inside one cage.

The same cage can be used to dispose of unsafe ammunition, utilizing the cage as a containment vessel to allow burning in situ. The cage will safely contain all the contents, enabling destruction without the risk of unexploded ordinance escaping and becoming a hazard at a later stage.

The picture shows the remains of twelve M2A1 metal ammo boxes that contained 1200 12.7mm Ball and Tracer rounds after a 6C Bonfire test. The witness screen indicates a complete failure of the packaging.

A One4Pack safety cage would have prevented this...
Internal Safety Cages
The small safety cages have been designed to fit into an M2A1 or H83 ammunition container. One4Pack Internal Safety Cages offer two designs. A standard version for ammunition up to 12.7mm and a reinforced version for ammunition that contains chemical or explosive fills.

Key Technical Features
- All steel construction
- Corrosion Resistant
- Fits existing H83/M2A1 ammunition boxes
- Holds 1000 rounds 9mm
- Holds 600 rounds 5.56mm
- Holds 400 rounds 7.62mm
- Holds 200 rounds 300WM/338LM
- Holds 100 rounds .408/.416
- Holds 70 Rounds .460/.50BMG

Safety Cages
The Pack safety cages have been designed to allow M2A1 or H83 ammunition containers to be placed inside without the need to repack the contents. One4Pack Safety Cages offer two designs in several sizes. A standard version for ammunition up to 12.7mm and a reinforced version for ammunition that contains chemical or explosive fills.

Standard Pack Cage Sizes
- 2 layer M2A1 or H83 Euro or NATO
- 3 layer M2A1 or H83 Euro or NATO

Reinforced Pack Cage Sizes
- 2 layer M2A1 or H83 Euro or NATO
- 3 layer M2A1 or H83 Euro or NATO

Storage Cages
The storage cages have been designed primarily for storage of M2A1 or H83 ammunition containers. One4Pack Safety Cages offer two designs in several sizes. A standard version for ammunition up to 12.7mm and a reinforced version for ammunition that contains chemical or explosive fills. Both are hinged for ease of access. Can also be used for transport if required.

Standard Pack Cage Sizes
- 4 layer M2A1 or H83 Euro or NATO

Reinforced Pack Cage Sizes
- 4 layer M2A1 or H83 Euro or NATO

Carton Safety Cage
The carton safety cage has been designed for the transport of carton ammunition, up to 12.7mm.

Carton Cage Size
- 3 self contained layers either Euro or NATO size.

Other Sizes to Order but Maybe Subject to Further Testing.
- EURO Pallet size holds 17 M2A1 or H83 per layer
- NATO Pallet size holds 24 M2A1 or H83 per layer

REDUCE SHIPPING COSTS BY
AIR - LAND - SEA

Pack Safety Cage

We have a large range of safety cages, all offer a tested and certified method of packaging which guarantees that all your ammunition can be transported and stored as UN Hazard Classification Code (HCC) 1.4s. The safety cages are designed to contain all the ammunition components and ammo box fragments during the event of a fire. They work by allowing the resulting gases generated by combustion to be vented safely whilst at the same time prevent the escape of fragments. Each design is made up of ten components, many of which are interchangeable, allowing many sizes to be stocked with a minimum number of parts. Each design can be made to fit either the standard NATO (1200/1000) or EURO (1200/800) pallet sizes. They can be finished with a powder coat, or wet paint with the option to zinc plate for extra protection from corrosion, depending on your needs.

The cages are easily assembled and when not in use can be flat packed for ease of storage.

Savings-Benefits

Storage and shipping is greatly simplified, costs are reduced and the whole supply chain becomes more efficient, especially when most products can be shipped as 1.4S on commercial airlines. Removing the restriction of Cargo Only transport allows for greater flexibility when looking at shipping options and brings substantial savings to the client.

By utilising the One4Pack safety cages to reduce the HCC to 1.4S, savings of 30% + on transport and insurance quotes have been seen depending on the quantity, transport type and destination.

One4Pack safety cages, offer the choice of safety transporting by land, sea or air, giving you the flexibility to choose the cheapest and fastest route for your cargo. When tendering a saving in time or money could make the difference between winning and losing an order.

Avoiding penalties for late delivery caused by delays in getting your cargo to its destination or difficult transport options can be avoided.

Unique Advantages

- Tried/Tested & fully Certified by HSE.
- Ensures classification down to 1.4S.
- Reduces risks - increases public safety.
- Designed to fit on a standard NATO or EURO pallet.
- Significantly reduces the costs of transportation.
- Re-Usable.
- Flat packed for ease of storage or transport when not in use.
- Enhanced security.
- Available in many sizes.
- All steel construction.
- Corrosion resistant.
- Holds up to 96 H83/M2A1 ammunition containers.
- Holds up to 160kg NEQ.
- Can be used banded or un banded.

Internal Safety Cage

This is available in two types, standard and reinforced, both have been designed to fit internally into a M2A1 or H83 ammunition container.

The Standard Safety Cage, consists of 3 layers and has been passed as suitable for all ammunition types up to 12.7mm ball and tracer, providing One4Pack, pack methods are used.

The Reinforced Safety Cage has reinforced inner layers to contain more energetic ammunition, it has been passed as suitable for chemical and explosive filled rounds such as 12.7mm Multi-Purpose Tracer, which contains RDX (explosive compound), as well as a propellant fill. This cage can also be used for safety securing, storing and transporting unknown ammunition handed to an agency or at EOD call outs.

Both types of internal cage offer a safe and cheaper transportation option, primarily used when small quantities of ammunition need to be transported. Being able to fly small quantities of ammunition safely on almost any passenger aircraft has many distinct benefits.

It offers the military, police and other security agencies the ability to transport safely Small Arms Ammunition that is no longer in its original packaging. It can even be used for safely securing, storing and transporting ammunition needed as an exhibit or evidence in legal proceedings.

The civilian shooting community would also benefit from its use, when purchasing, storing or transporting ammunition that is no longer in its original packaging.

Pack Safety Cage

We have a large range of safety cages, all offer a tested and certified method of packaging which guarantees that all your ammunition can be transported and stored as UN Hazard Classification Code (HCC) 1.4s. The safety cages are designed to contain all the ammunition components and ammo box fragments during the event of a fire. They work by allowing the resulting gases generated by combustion to be vented safely whilst at the same time prevent the escape of fragments. Each design is made up of ten components, many of which are interchangeable, allowing many sizes to be stocked with a minimum number of parts. Each design can be made to fit either the standard NATO (1200/1000) or EURO (1200/800) pallet sizes. They can be finished with a powder coat, or wet paint with the option to zinc plate for extra protection from corrosion, depending on your needs.

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WE CAN HELP

Unfortunately ignorance of the regulations is not an excuse. Mistakes in using the wrong packaging or in incorrectly marking your hazardous cargo, can leave you liable to prosecution.

We can assist with recommending the best pack method for your product; we can also assist in classifying a new product. We offer a full consultation and testing program, often being able to improve the hazard classification of your product.

Currently we are testing the cage on a wide variety of products, from ammunition to smoke grenades and flares and are confident we can reduce the shipping hazards significantly.

We are happy to work with manufacturers and shippers to find a safer more cost effective solution to shipping hazardous cargo. Many other sizes can be constructed depending on the product but may be subject to further testing.

Licence agreements

These include:
- Exclusivity or territorial restrictions.
- Financial aspects including required advances, royalty rates, and how royalties are calculated.
- Guarantees of minimum sales.
- Time schedules involving “to market” dates, length of contract, and renewal options.
- The licensor’s rights of monitoring and quality control, including procedures to be followed.
- Minimum inventories required to be maintained.
- Control of copyrights, patents, or trademarks.

We welcome the opportunity to work with new markets worldwide.