

Ocean Shipping Container Capacities

Alken-Murray Corp. **DOES NOT manufacture or sell ocean containers or know the identity of their vendors.** When you order sufficient product quantity from Alken-Murray to fill an ocean container and book space aboard a ship, the ship's owner will dispatch one of his containers aboard a flatbed truck to pick up the product you ordered for its trip to your country, where it is unloaded, passed through customs and sent to you through a local truckling company. The container is then refilled with products from other vendors and sails back to its origin for reuse again. The information provided below is offered for the convenience of Alken-Murray's clients to help them to determine the quantity of Alken-Murray's products.

| ltem | Dimensions (I x w x h) | | Maximum weight | |
|--|--------------------------------|-------------------------------------|------------------|------------------|
| | (Inches) | (centimeters) | (Pounds) | (Kilograms) |
| 20-foot container 40-foot container | 234 x 92 x 96 474 x 92 x 96 | 595 x 234 x 244 1204 x 234 x 244 | 35,000 45,000 | 15,890 20,430 |

The maximum allowable weight of the 40-foot container is not necessarily double that of the smaller 20-foot container, due to ground transportation regulations which limit the weight that a truck is permitted to carry on US highways.

Here is how to calculate how much of your chosen Alken-Murray product will fit in a shipping container:

- 1. Choose which size shipping container: 20-foot or 40-foot container.
- 2. Choose the product.
- 3. Calculate how many pieces of product will fit on a standard pallet.
- 4. Calculate the gross weight of one product piece: net weight of product + empty weight of its container or package.
- 5. Calculate gross weight of one piece x number of pieces that will fit on the pallet.
- 6. Add the weight of the empty pallet to the previous total, to obtain the gross pallet weight.
- 7. Divide the capacity of the shipping container by the gross pallet weight, to determine the maximum number of pallets that can be put in the container. For space limitations, no more than 16 pallets can be put in a 20-foot container; no more than 36 pallets in a 40-foot container. On 40-foot containers, total weight is usually the limiting factor which results in fewer than 36 pallets capacity.
- 8. For the total shipping weight, multiply the gross pallet weight by the number of pallets to be put in the shipping container.

Microbial products:

a) Alken Clear-F lo[®] 7000-3x or 1007-3x dry 500-po und cu bitainers are considered as one pallet. Eight pallets will fit on a 20-foot container floor. A second layer of 8 pallets of dry product may be stacked on top of the first.
 20-foot container: 16 cubitainers.

40-foot container: 36 cubitainers.

b) Alken Clear-Flo[®] and Enz-Odor[®] dry 50-pound fiber drums should be stacked no more than two layers high. One layer (3 x 3 drums) = 9 drums; two layers = 18 drums. If packed 3 x 4 drums per layer,

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there would be 2.5 inches overhang, on a standard pallet. This would have to be considered, when calculating shipping volume, were the pallets to be shipped individually. With the overhang, there would be 12 drums for one layer; 24 drums for two layers. In either case, 8 pallets will fit on a 20-foot container floor. A second layer of 8 pallets may be stacked on top of these.

20-foot container: 288 drums (2 layers x 9 per layer x 16 pallets)

384 drums (2 layers x 12 per layer x 16 pallets)

40-foot container: 648 drums (2 layers x 9 per layer x 36 pallets)

792 drums (2 layers x 12 per layer x 33 pallets) limited by weight

c) Alken Clear-Flo[®] and Enz-Odor[®] dry 25-po und pails should be stacked no more than two layers high, per pallet. One layer (3 x 3 pails) = 9 drums; two layers = 18 pails. If packed 3 x 4 pails per layer, there would be 2.5 inches overhang, on a standard pallet. This would have to be considered, when calculating shipping volume, were the pallets to be shipped individually. With the overhang, there would be 12 pails for one layer; 24 pails for two layers. In either case, 8 pallets will fit on a 20-foot containerfloor. A second layer of 8 pallets may be stacked on top of these.

20-foot container: 288 pails (2 layers x 9 per layer x 16 pallets)

384 pails (2 layers x 12 per layer x 16 pallets)

40-foot container: 648 pails (2 layers x 9 per layer x 36 pallets)

864 pails (2 layers x 12 per layer x 36 pallets)

- d) Alken Clear-Flo[®], Enz-Odor[®] Treat-A-Loo and Nu-Bind liquid 250-gallon cubitainers are considered as one pallet. Eight pallets will fit on a 20-foot container floor. A second layer of 8 pallets of liquid product would exceed the weight capacity of the container. A second layer of 8 pallets of dry products is possible, provided that the total weight is under the limit specified for the shipping container.
 20-foot container: 14 to 16 cubitainers, depending on product density.
 40-foot container: 15 to 20 cubitainers, depending on product density.
- e) Alken Clear-Flo[®] and Enz-Odor[®] liquid 55-gallon drums should only be stacked one layer high, per pallet. For these, the larger 45 x 50 x 5 solid oak pallet is usually used, for holding 4 drums; the standard pallet may be used for 3 drums or less. One to four drums per pallet. Eight pallets will fit on a 20-foot container floor. A second layer of 8 pallets of liquid product may be stacked on top of the first, provided that the total weight capacity is not exceeded. This may require that the second layer have 3 drums per pallet, on some of the pallets, depending on product density.

20-foot container: 48 to 64 drums, depending on product density. 40-foot container: 64 to 88 drums, depending on product density.

f) Alken Clear-Flo[®], Enz-Odor[®], Treat-A-Loo and Nu-Bind liquid 5-gallon pails should be stacked no more than two layers high, per pallet. One layer (3 x 3 pails) = 9 drums; two layers = 18 pails. If packed 3 x 4 pails per layer, there would be 2.5 inches overhang, on a standard pallet. This would have to be considered, when calculating shipping volume, were the pallets to be shipped individually. With the overhang, there would be 12 pails for one layer; 24 pails for two layers. In either case, 8 pallets will fit on a 20-foot container floor. A second layer of 8 pallets may be stacked on top of these.
 20-foot container: 288 pails (2 layers x 9 per layer x 16 pallets)

384 pails (2 layers x 12 per layer x 16 pallets) **40-foot container: 648 pails** (2 layers x 9 per layer x 36 pallets) **864 pails** (2 layers x 12 per layer x 36 pallets)

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g) Alken Enz-Odor[®] 4x1-gallon cases may be stacked no more than three layers high. One layer (3 x 3 cases) = 9 cases; two layers = 18 cases; three layers = 27 cases. If packed 3 x 4 cases per layer, there would be 2.5 inch es overhang, on a standard pallet. This would have to be considered, when calculating shipping volume, were the pallets to be shipped individually. With the overhang, one layer = 12 cases; two layers = 24 cases; three layers = 36 cases. Since the case cartons will not support the weight of an additional layer of pallets on top of them, these may be considered for a second pallet layer in shipment with another product as the first pallet layer of the container.

20-foot container: 216 cases (3 layers x 9 per layer x 8 pallets) limited by carton strength
288 cases (3 layers x 12 per layer x 8 pallets)limited by carton strength
40-foot container: 486 cases (3 layers x 9 per layer x 18 pallets)limited by carton strength

648 cases (3 layers x 9 per layer x 18 pallets)*limited by carton strength* **648 cases** (3 layers x 12 per layer x 18 pallets)*limited by carton strength*

Fuel Additive products:

Alken Even -Flo[®], PDE and demulsifiers 55-gallon steel drums should only be stacked one layer high, per pallet. For these, the larger 45 x 50 x 5 solid oak pallet is usually used, for holding 4 drums; the standard pallet may be used for 3 drums or less. One to four drums per pallet. Eight pallets will fit on a 20-foot container floor. A second layer of 8 pallets of liquid product may be stacked on top of the first, provided that the total weight capacity for the shipping container is not exceeded. This may require that the second layer have 3 pieces per pallet, on some of the pallets, depending on product density.
 20-foot container: 60 to 64 drums, depending on product density.

40-foot container: 76 to 104 drums, depending on product density.

b) Alken Even-Flo[®] demulsifiers and PDE 5-gallon steel pails should be stacked no more than three layers high, per pallet. Stacked, without their cartons, twelve of them will fit on a pallet, without any overhang. If they must be packed in cartons, there will be a 2.5-inch overhang, when 12 boxed pails are put on a standard pallet. 216 (3 layers of 9 pcs, per pallet) or 288 (3 layers of 12 pcs, per pallet) per 20-foot container.

20-foot container: 360 pails (3 layers x 9 per layer x 8 pallets, bottom layer only + 2 layers x 9 per layer x 8 pallets) total height restriction
480 pails (3 layers x 12 per layer x 8 pallets, bottom layer only + 2 layers x 12 per layer x 8 pallets) total height restriction
40-foot container: 648 pails (2 layers x 9 per layer x 36 pallets)
864 pails (2 layers x 12 per layer x 36 pallets)

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