

## SOLID WASTE CONTAINER

### TECHNICAL FIELD

This invention relates to sealable solid waste transport containers, and more particularly to waste containers for transporting asbestos or similar solid waste materials.

### BACKGROUND OF THE INVENTION

Solid waste is typically transported by truck from a generating facility to a disposal site, with non-hazardous materials typically transported in bulk containers. The transportation and handling of solid hazardous waste poses a special problem, due to the potential exposure to those loading, transporting and unloading the trucks hauling the waste. For example, asbestos is typically double-bagged in plastic to prevent the release of asbestos fibers into the air during handling transportation and storage. However, such bags may tear and cause a release of asbestos fibers. While protective gear is typically worn, it is preferable to prevent any release to avoid contaminating not only the worker but the truck interior, waste generating or waste disposal facility. In addition, such bags, having no structural integrity, tend to shift during transportation increasing the potential for tearing. They are also difficult to handle and store.

### SUMMARY OF THE INVENTION

It is an object of the present invention to provide a solid waste container which allows ease in handling and storage of solid waste material.

It is a further object to provide a solid waste container which is sealable to prevent any inadvertent release of the material contained therein.

It is a further object to provide a solid waste container which may be put under vacuum such that if a leak develops, air leaks into rather than out of the container.

It is yet another object to provide a solid waste container that is stackable and sealable to maximize storage capacity.

These and other objects of the present invention are achieved by providing a solid waste container comprising a container body, having an open top, lid means removably disposable on the top of said container, the lid means including a passage, filter means disposable on an inboard side of the passage, and reverse flow prevention means disposed within or on the outside of the passage, for allowing withdrawal of air from the container. Utilizing such a container assures that any leaks which develop will draw air into the container rather than cause discharge of possibly contaminated air out of the container.

In a preferred embodiment, the container lip has an inner lid seal adhesively applied for sealing the lid to the container. The container and lid have integral structures, such as legs and receiving sockets for stacking and other integral structures for lifting and transportation by fork truck or hand truck. Optionally, the container may have straps for binding the lid to the container or binding adjacent containers to each other.

### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the waste container of the present invention.

FIG. 2a is a side view and FIG. 2b is a bottom view of the container of FIG. 1.

FIG. 3 is a top view of the container lid.

FIG. 4 is a cross sectional view of the lid taken along line 4—4 of FIG. 3.

FIG. 5 is an enlarged sectional view of the lid taken along line 5—5 of FIG. 3.

FIG. 6 is an enlarged view showing the lid to container seal.

FIGS. 7a and 7b are enlarged sectional views of the pressure sensing grommet.

### DETAILED DESCRIPTION OF THE INVENTION

Referring to FIGS. 1, 2a and 2b, a container 1 has sidewalls 2, a bottom 3 and an open top 4. The container sidewalls are preferably tapered to allow multiple containers to be stacked when full or nested when empty. The sidewalls and bottom have grooves 5 for accepting straps or banding for securing the containers. Each sidewall has a pair of such grooves, and each has a handle 6 for manual manipulation of the container. The container 1 also has slots 7 formed in the bottom of the container. These slots are sized to accept the forks from a hand truck or fork truck.

The container is preferably composed of a plastic material such as polyethylene, polyvinylchloride, nylon, polycarbonate or polyesters. Of course, other materials such as polystyrene, polyurethane, polypropylene, polybutylene, etc. could be used. Preferably, the container body and lid are molded using a rotomolding technique, which assures proper detail molding. Of course, other methods of molding such as injection molding could also be used.

A lid 8 is provided for mating with a lip 9 on the top of the container. The lid has a flange 10 which extends over the container lip and has a surface 11 for engaging the lip to seal the container. Once mated, an air tight seal is obtained.

While with some plastics, the lid to container seal is achieved directly, it is preferable to use a seal placed between the lid and container. Referring still to FIG. 1, an L-shaped seal 12 is used which preferably extends around the entire container lip 9. A portion 13 of the seal rests on top of the lip and a portion 14 rests against the inner surface of the sidewall. The seal may be composed of rubber, foam or another resilient material and be adhesively attached to either the container or lid to avoid shifting.

Referring to FIG. 6, the lid to container seal is shown. The lid surface 11 engages the seal portion 13 which rests on the lip 9. The seal portion 14 is sandwiched between the sidewall 2 and a vertical lid surface 33. This L-shaped seal assures that the container has an airtight seal.

The lid 8 also has grooves 15, best seen in FIG. 3, which are aligned with the corresponding grooves 5 on the sidewalls of a container for strapping. Preferably the grooves are about 1½" wide for accepting up to a 1½" wide banding material, such as nylon strapping. Thus, the lid can be strapped to the container. Optionally, precut and sized straps may be attached at one end to the lid by rivets or other means to avoid the necessity of handling bulk strapping.

The lid 8 also has sockets 16 for accepting the legs of another container for stabilized stacking. Four sockets 16 are provided to accept legs or projections 17 molded on to the bottom of the container (see FIG. 2b). Conse-