

Alert 17-02: Guidance on the Shelf Life of Steel Drums

Background

A common question among purchasers and users of steel drums is, “What is the expected shelf life of a steel drum?” In general, manufacturers of packaging do not issue a warranty or guarantee regarding their packaging. There are several good reasons for this:

- The manufacturer cannot control the handling, transportation and storage conditions to which the drum is exposed;
- Many users issue their own exacting specifications; and
- The nature of the filled product can have differing effects on the shelf life of a steel drum.

However, many manufacturers do offer guidance on the approximate shelf life of their packaging given various factors that can influence the packaging. For a steel drum, it is recommended that the drum be stored under cover, away from direct sunlight and in an area without substantial temperature swings. While not a guarantee, the following guidelines are considered generally acceptable practice.

Empty Drums

Due to possible corrosion of the interior surface, empty, unlined drums typically have a shelf life of one to three months, depending on the humidity and environment in which the drums are stored. This is because unprotected steel can begin to accumulate visible rust in as few as five days, depending upon the environment. In contrast, empty, internally lined drums have an expected shelf life of one year from the date of manufacture as long as no exterior degradation occurs.

The following factors have been identified as affecting the shelf life of empty drums:

- Quality of external paint, screening inks, gaskets and other drum components;
- Proper transportation and handling of the empty drum;
- Storage conditions, including relative humidity, common vapor and air transfer in the drum; and
- Time.

Filled Drums

Filled drums typically have a shelf life of six months to one year, assuming that the appropriate lining has been selected – one that is compatible with the filled product. Very aggressive products and extreme temperature conditions may lead to a shortened shelf life.

The following factors have been identified as affecting the shelf life of filled drums:

- Quality of external paint, screening inks, gaskets and other drum components;
- Quality of the interior lining;
- Compatibility of the internal lining with the filled product;
- Method of drum filling and subsequent handling and transportation conditions; and
- Storage conditions of the filled drum prior to use of the product.





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When provided with the user's specifications, it is the steel drum manufacturer's responsibility to provide a container that meets your exacting requirements. However, it is the responsibility of the customer (and shipper, if the product is a hazardous material) to ensure that the filled product is compatible with the specified packaging prior to filing, handling or shipment.

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