

Alert 14-06: Steel Drum Accessory Compatibility

When specifying new steel drums, it is important that careful consideration be given to all materials of construction, particularly those that might come in contact with the product – whether it is hazardous or non-hazardous – to be sure that they are compatible. The selection of plugs, flanges, gaskets, interior treatments, removable liners and end-seam sealers should be given the same scrutiny as interior linings to ensure that the containers will perform satisfactorily. §173.24(e)(1) of Title 49 of the Code of Federal Regulations (CFR), Hazardous Materials Regulations, states that it is, “the responsibility of the person offering a hazardous material for transportation to ensure that such packagings are compatible with their lading.”

In addition to these regulatory requirements, you should also consider the effects that packaging components have on your products. Compatibility has two considerations:

1. The effects of products on packaging components.
2. The effects of packaging components on the contained products.

Many of these components have been laboratory and field-tested over the years to ensure they are suitable for the lading being packaged. However, as innovations in container technology are adopted and as new fill products are introduced or reformulations of existing ones evolve, container components that previously may have been acceptable no longer may perform as expected.

Therefore, all container components should be evaluated periodically to be sure they meet the specific performance requirements for the products you package. Such things as open-head cover gaskets, steel, nylon or plastic plugs and their gaskets, removable liners and end-seam sealers can be readily provided for your evaluation. Usually, a simple lab test can prove invaluable in preventing a costly product claim. The various component suppliers are a prime source of information and are always available to lend their valuable suggestions.

Whether conducting your own laboratory tests, enlisting the expertise of the various components suppliers, or consulting with a third-party laboratory or drum manufacturer, it is advisable to bear in mind the adage “an ounce of prevention is worth a pound of cure” when it comes to container component selection. Full disclosure of the characteristics of the product to be packaged for shipping is essential in determining the correct drum components, including gaskets, end-seaming compound, fittings, linings and removable liners, etc., for a particular application.

It is the filler’s responsibility to select the proper container and container components consistent with the specifications of the fill product and to document these vital details in writing for the container manufacturer. As the product manufacturer or filler, you know its characteristics best and are in an ideal position to understand all of the possible interactions between the product being filled and its package and components. Your container supplier will be happy to assist you in your container component selections.

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