

# THE IMPORTANCE of Fusible Plug Use in Steel Drums

Article By: Susan Nauman, Executive Director,  
Industrial Steel Drum Institute



## What are fusible plugs?

Fusible plugs are a type of drum closure made of impact-resistant nylon, polyethylene or polypropylene resin.<sup>5</sup> They are installed in the openings on the top head of a steel drum to create a leak-proof seal.

There are three reasons why a fusible plug is a safer choice when packaging flammable and combustible liquids in steel drums. First, when the container is under extreme heat, the plug melts to allow gases to easily vent from the container by relieving pressure at the point of buildup. This feature preserves the structural integrity of the drum.<sup>6</sup> Second, fusible plugs meet the United Nations rating for both tight-head and open-head steel drums. Steel drums paired with fusible plugs can pass rigorous performance testing, meet international standards and is properly rated for many materials.<sup>7</sup> Lastly, drums with fusible plugs can be stacked four high during storage<sup>8</sup> and result in lower insurance costs.<sup>9</sup>

Steel drums are the most widely used industrial package in the world for the shipment and storage of hazardous goods. This type of container is a smart choice given its consistent strength and durability, as well as its unparalleled safety record.<sup>1</sup> This is why steel drums safely transport approximately 50 million tons of both hazardous and non-hazardous materials around the world each year.<sup>2</sup>

First responders know better than most that even the safest products can be dangerous under certain circumstances. However, steel drums, when paired with fusible plugs and the proper fire suppression system, can be safely used with flammable and combustible products, even under fire conditions.<sup>3</sup> For more information, you can reference NFPA Code 30 for additional details.<sup>4</sup>

The Industrial Steel Drum Institute first partnered with TRANSCAER in 2018 to bring to light the importance of fusible plugs when applied to steel drums through their Seconds Count video series. The video, which was the 29th TRANSCAER produced, is used as a training tool for first responders.

“This new training is what TRANSCAER is all about – using the knowledge and expertise of our sponsors to better train and prepare our emergency responders,” said Keith Silverman, chairman of the National TRANSCAER Task Group and senior vice president, global operations, quality and EHS at Ashland.

Here at ISDI, we couldn’t agree more. By raising awareness with community leaders and first responders, we can help them prepare and properly respond to incidents involving potentially hazardous materials. ■

## THE BASICS OF STEEL DRUMS and FUSIBLE PLUGS



<sup>1</sup><https://whysteeldrums.org/why-steel-drums/safety-security/>

<sup>2</sup><https://whysteeldrums.org/why-steel-drums/>

<sup>3</sup>[https://whysteeldrums.org/wp-content/uploads/2017/08/ISDI-Plug-Infographic\\_update.pdf](https://whysteeldrums.org/wp-content/uploads/2017/08/ISDI-Plug-Infographic_update.pdf)

<sup>4</sup><https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=30>

<sup>5</sup><https://whysteeldrums.org/fusible-plugs-video/>

<sup>6</sup>[https://whysteeldrums.org/wp-content/uploads/2017/08/ISDI-Plug-Infographic\\_update.pdf](https://whysteeldrums.org/wp-content/uploads/2017/08/ISDI-Plug-Infographic_update.pdf)

<sup>7</sup><https://whysteeldrums.org/wp-content/uploads/2015/03/Infographic.pdf>

<sup>8</sup>[https://whysteeldrums.org/wp-content/uploads/2017/08/ISDI-Plug-Infographic\\_update.pdf](https://whysteeldrums.org/wp-content/uploads/2017/08/ISDI-Plug-Infographic_update.pdf)

<sup>9</sup><https://whysteeldrums.org/wp-content/uploads/2015/03/Infographic.pdf>

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