

We are



May/June 2019

## Process Safety Dispatch

---

### In this Issue

- Safety Feature: How to Use Dust Explosion Test Data
- Cases in the News: From Flash Photography to Factory Explosions over 130 Years
- Free On Demand Webinars

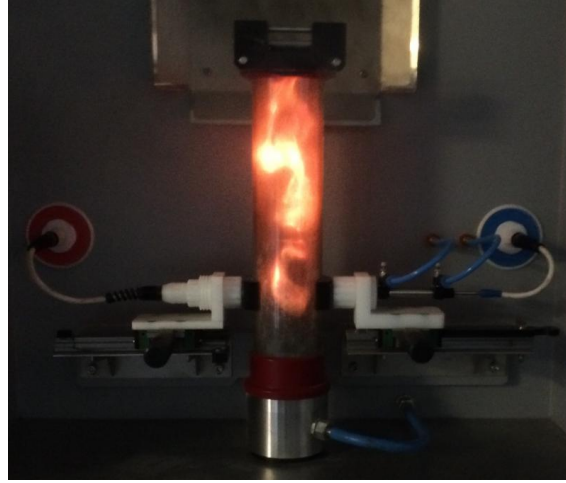
---

### How to Use Dust Explosion Test Data

“My powder has a  $K_{st}$  of 257bar.m/s, a Minimum Ignition Energy (MIE) of 3mJ and a bulk powder Volume Resistivity of  $5 \times 10^{15}$  ohm.m; do I have a problem?”

As a contract process safety test laboratory, we have noticed more and more companies measuring the flash-fire and explosion properties of their powders; but how are they making use of the data they obtain? In this short piece, we provide a few pointers to help you make sense of all the data that you obtain as a part of Dust Hazard Analysis (DHA) requirements of NFPA 652... [Continue reading](#)

---



**Minimum ignition energy (MIE)** is defined as the electrical energy stored in a capacitor which, when released as a high voltage spark, is just sufficient to ignite a dust cloud at its most easily ignitable concentration in air.

---

## Cases in the News: From Flash Photography to Factory Explosion over 130 Years



Somewhere in America in the late 1880's a man stood with a camera facing his subject. In one hand he had a line of magnesium powder a-top a pole. A smile, a spark and a brilliant flash later he had captured a photograph (ref. 1). Fast-forward a century...

### Stonehouse Process Safety Commentary:

MAGNESIUM powder is incredibly useful today. Everything from aircraft parts to automotive components are made from magnesium, benefiting from the metal's light weight and high strength giving a favorable strength-to-weight ratio. But the metal must be treated with great respect and thoughts of the photographer of yesteryear is the key to why...[Continue Reading](#)

Photo Courtesy of Eliza Pillsbury, 2018.

---

## Free On Demand Webinars

[Combustible Dust Hazards: Assessment, Prevention and Protection Including the Requirements of NFPA 652 \[watch\]](#)

[Electrostatic Hazards in Processing Industry: The Nature of the Problem and Practical Measures for its Control \[watch\]](#)

[Fire and Explosion Hazards: How to Identify and Control Them in Your Process \[watch\]](#)

---

**Stonehouse Process Safety** provides expert process safety consulting, testing, training, and litigation support services in the specialist areas of dust flash fires & explosions, gas & vapor flammability, electrostatic hazards, and thermal

decomposition. Headquartered in Princeton, NJ, Stonehouse serves clients in the pharmaceutical, chemical, food, legal/insurance, metals, plastics, rubber and other process manufacturing industries.

[www.stonehousesafety.com](http://www.stonehousesafety.com)

---

**If you received this newsletter from a colleague and would like to sign up to receive our newsletters in the future -- Sign up [here](#).**