The Combustible Dust Incident Report for Year 2022 is Released

Critical and Valuable Insights are presented in The Combustible Dust Incident Report for the Year 2022, including Worldwide, Combustible Dust Incidents.

Combustible Dust Incident Report Year 2022 from Dust Safety Science

LONDON, ONTARIO, CANADA, November 9, 2023 /EINPresswire.com/ -- The Combustible Dust Incident Report for the Year 2022, Download here: https://go.dustsafetyscience.com/2022IR-6

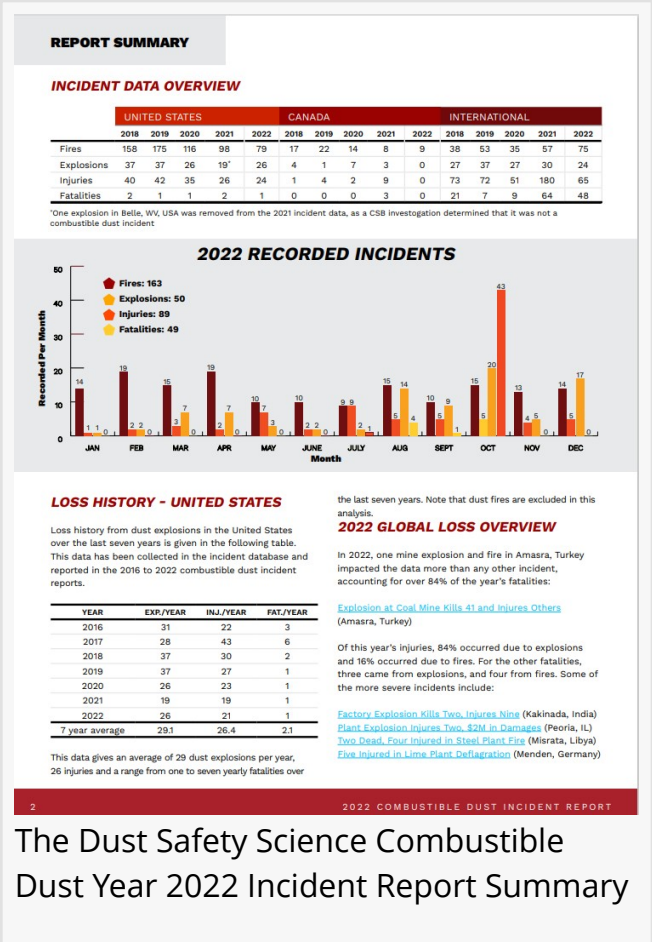
The latest insights into Combustible Dust safety, Combustible Dust Explosions, and Combustible Dust knowledge, are covered in detail, with The Combustible Dust Incident Report for the Year 2022, and a detailed analysis of the materials, industries, and equipment involved.

In this new Combustible Dust Incident Report for the Year 2022, learn about:

1) Loss History, United States:
Loss history from combustible dust explosions in the United States over the last seven years is provided. This data has been collected in the incident database and reported in the 2016 to 2022 combustible dust incident reports.

2) What materials are most commonly involved in Combustible Dust Explosions and Combustible Dust Fires?
From the global incident data, food and wood products made up 73% of the fires and explosions recorded, but only 29% of the injuries and 10% of the fatalities. The largest-loss food product incident was a sugar dust explosion that killed two and injured nine more. Coal was the most deadly material, accounting for 31% of the injuries and 84% of this year's fatalities, despite accounting for only 5% of the recorded incidents.

3) 2022 Global Loss Overview:
In 2022, one mine explosion and fire in Amasra, Turkey impacted the data more than any other incident, accounting for over 84% of the year's fatalities.



REPORT SUMMARY

INCIDENT DATA OVERVIEW

	UNITED STATES					CANADA					INTERNATIONAL				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
Fires	158	175	116	98	79	17	22	14	8	9	38	53	35	57	75
Explosions	37	37	26	19*	26	4	1	7	3	0	27	37	27	30	24
Injuries	40	42	35	26	24	1	4	2	9	0	73	72	51	180	65
Fatalities	2	1	1	2	1	0	0	0	3	0	21	7	9	64	48

*One explosion in Belle, WV, USA was removed from the 2021 incident data, as a CSB investogation determined that it was not a combustible dust incident

2022 RECORDED INCIDENTS

LOSS HISTORY - UNITED STATES

Loss history from dust explosions in the United States over the last seven years is given in the following table. This data has been collected in the incident database and reported in the 2016 to 2022 combustible dust incident reports.

YEAR	EXP./YEAR	INJ./YEAR	FAT./YEAR
2016	31	22	3
2017	28	43	6
2018	37	30	2
2019	37	27	1
2020	26	23	1
2021	19	19	1
2022	26	21	1
7 year average	29.1	26.4	2.1

This data gives an average of 29 dust explosions per year, 26 injuries and a range from one to seven yearly fatalities over the last seven years. Note that dust fires are excluded in this analysis.

2022 GLOBAL LOSS OVERVIEW

In 2022, one mine explosion and fire in Amasra, Turkey impacted the data more than any other incident, accounting for over 84% of the year's fatalities:

Explosion at Coal Mine Kills 41 and Injures Others (Amasra, Turkey)

Of this year's injuries, 84% occurred due to explosions and 16% occurred due to fires. For the other fatalities, three came from explosions, and four from fires. Some of the more severe incidents include:

Factory Explosion Kills Two, Injures Nine (Kakinada, India)
Plant Explosion Injures Two, $2M in Damages (Peoria, IL)
Two Dead, Four Injured in Steel Plant Fire (Misrata, Libya)
Five Injured in Lime Plant Deflagration (Menden, Germany)

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The Dust Safety Science Combustible Dust Year 2022 Incident Report Summary

4) What industries are most commonly involved in Combustible Dust Explosions and Combustible Dust Fires?
Wood processing, wood products, agricultural activity, and food production make up a large portion of the overall fire and explosion incidents. Since 2017 wood and wood products have ranged from 19% to 28% of the incidents, while agricultural activity and food production have ranged from 33% to 50%.

5) What Equipment is most commonly involved in Combustible Dust Explosions and Combustible Dust Fires?
In 2022, dust collectors demonstrated the highest percentage (24%) of combustible dust incidents with 40 fires and 10 explosions reported. Storage silos and dryers were the next biggest source of incidents, accounting for 21% each. Of the incidents with known equipment, dust collectors had the highest number of injuries and fatalities, followed closely by elevators/conveyors and storage silos. Dryers, which accounted for the highest portion of last year's injuries, accounted for only four injuries in 2022.

6) Combustible Dust Incident-related OSHA Violations and Fines:
Inspections Resulting In Citations: 13
Total Initial Penalties: $1,052,255
Initial Penalty/Citation: $6,456
Total Citations: 163
Total Current Penalties: $638,269
Initial Penalty/Inspection: $45,750
*Information was collected from OSHA Data & Statistics by searching for "dust" within inspection details from citations made using the General Duty Clause

7) Additional Combustible Dust Explosion research is currently being completed:

Dust Safety Science is dedicated to providing you with the most comprehensive and up-to-date information on combustible dust explosions that occurred in the United States in 2023. Our ongoing research endeavors involve meticulous data collection and analysis to ensure accuracy. As part of our commitment to transparency, we have included a table that links to the incidents recorded throughout 2023. This table offers valuable insights into the locations, causes, and frequency of these incidents, aiding in better understanding and mitigating the risks associated with combustible dust.

8) Download all of our Combustible Dust Incident Reports:
Looking for comprehensive Combustible Dust Incident Reports spanning from 2016 to 2023? You're in the right place! Our website offers a convenient and accessible way to download all these reports. Gain valuable insights into incident trends, safety measures, and risk assessments by accessing this extensive collection.

Stay ahead in Combustible Dust safety knowledge by downloading the Dust Safety Science Year 2023 Incident Report: https://go.dustsafetyscience.com/2022IR-6

The Dust Safety Science Incident Report can help safeguard any workplace, from Combustible Dust and Combustible Dust Explosions.

The Dust Safety Science Incident Report is an extension of our communication, hazard awareness, and education work to drive our road to zero mission: At least one year with zero fatalities worldwide from combustible dust explosions by 2038.

The Dust Safety Science research work and efforts, provide valuable insights, allowing manufacturing facilities safer, from Combustible Dust explosions.

Thank you for your time and consideration, when downloading and reviewing the Dust Safety Science Incident Report for 2023: https://go.dustsafetyscience.com/2022IR-6

About Dust Safety Science, https://dustsafetyscience.com/ :

Dr. Chris Cloney (PEng.) is Managing Director and Lead Researcher at DustEx Research, a company with a worldwide focus on increasing awareness of combustible dust hazards and reducing personal and financial loss from fire and explosion incidents.

Chris spent five years working as an engineering consultant and software developer in the defense industries focusing on detonation, explosion, and blast research. Upon completing his PhD thesis in the area of modeling coal dust and hybrid mixture explosion, he moved into the world of online education focusing on sharing and connecting the combustible dust

community.

Chris is a recognized expert in the field of combustible dust research publishing over 15 peer-reviewed journal articles and presenting at academic conferences in the US, Canada, China, Norway, the United Kingdom, and Poland. He is a featured public speaker having taken the stage at Explosion Safety Days 2017 in Brilon, Germany and the 2018 iPBS Powder Show in Chicago, and has written industry articles featured in Powder Bulk Solids and Chemical Engineering magazines.

Feel free to contact Dr. Chris Cloney, with any questions, regarding Combustible Dust Safety and Consulting:

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P.S. Want to Share the Dust Safety Science 2023 Combustible Dust Incident Report?
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