

Be Sure to Verify Fire or Explosion Risks Posed by Chemical Materials!



OSHRI publishes “Physical Risk Assessment Report on Chemical Substances”

- KOSHA’s Occupational Safety & Health Research Institute(Director Kim Eun-a) has published the Investigation into Chemical Accident Causes and Prevention: A Risk Assessment Report, analyzing and the physical risks associated with chemical substances used on industrial sites and offering safety measures to cope with those risks.
- This report assesses the risks of a fire starting or an explosion from dust conditions (particles floating in the air or accumulating on flood and equipment surfaces). It also evaluates the characteristics of chemical substances by dust type (powder handled in pharmaceutical production processes, plastics, activated carbon) as well as accident causes.

> The report consists of four volumes, each covering a different topic: ① Fires Started from Dust Conditions in Work Processes & Fire and Explosion Risk Assessment, ② Fire and Explosion Risk Assessment from Powders Handled in Pharmaceutical Production Processes, ③ Electrostatic Ignition Risk Assessment of Plastic Dust, and ④ Fire and Explosion Risk Assessment of Activated Carbon.

> In addition, the report provides accident case studies that investigate the causes of chemical accidents related to each substance, as well as technical data for performing physical danger tests & analysis and establishing preventive measures.

- OSHRI conducts tests and evaluations on the physical risks from chemical substances in connection with ongoing investigations into the causes of chemical accidents and industrial accident prevention projects.

> The Institute began performing onsite surveys in 2006, and provides the results in its tests on fire & explosion properties, reactivity & stability, conducted using sophisticated testing equipment, to assist in the investigations of accident causes as well as the creation of prevention policies.

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- Occupational Safety & Health Research Institute Director Kim Eun-a says, “The increases in the use of chemical substances on domestic industrial sites as well as in the volumes of chemical substances being handled have brought an accompanying rise in the risk of fires and explosions.”

> *Investigation into Chemical Accident Causes and Prevention: A Risk Assessment Report* presents the research results from in-depth analysis of the physical risks of chemical substances, arrived at through the application of our researchers’ specialized knowledge and testing equipment. I hope that the data provided herein are helpful when conducting investigations into the causes of accidental fires and explosions on industrial sites as well as establishing accident prevention measures.

