

SAFETY BULLETIN

Lime Safety

LIME TERMINOLOGY

Lime is a very broad term that can describe many calcium-based materials such as quicklime (calcium oxide), hydrated lime (calcium hydroxide), lime slurry (calcium hydroxide + water) or Calciment® LKD (lime kiln dust). Quicklime can come in various sizes. If you are not sure what type of lime you have or need, speak to your Mintek contact or call us at 937-431-0218.

LIME HAZARDS, PERSONAL PROTECTIVE EQUIPMENT & FIRST AID

Eyes – Contact with the eyes can cause severe irritation and possibly lead to permanent injury or blindness. Wear eye protection when working with or near lime. If lime comes in contact with the eyes, immediately flush them with fresh water for at least 15 minutes and get immediate medical attention.

Respiratory – Inhalation can irritate the mouth, nose and the rest of the respiratory system and possibly cause pulmonary edema. Wear a NIOSH N95 respirator or better. Respirators must be fit tested before use. If lime dust is inhaled, move to an area of fresh air and get immediate medical attention.

Skin – Contact the skin can cause severe irritation or burning. Pants, long-sleeved shirts, gloves and boots without cracked soles should be worn to minimize exposed skin. A barrier cream can help on areas where exposure may be imminent, like wrists or the neck area. If lime comes in contact with the skin, brush away as much material as possible then flush the affected area with liberal amounts of water. Thoroughly wash contaminated clothes and discard contaminated boots.

Whenever possible, avoid exposure or minimize exposure with engineered controls.

ATTENTION

SAFETY DATA SHEETS

- Review Safety Data Sheets (SDS) before working with any chemical.
- If you do not have an SDS for any Mintek product, visit the resources page at mintekresources.com, speak to your Mintek contact, or call us at 937-431-0218.

LIME REACTIONS

Quicklime and Calciment® LKD will both react with water in a very exothermic manner. Excess water should be readily available to dilute any areas that may have been overdosed.

Quicklime and Calciment® LKD absorb moisture and CO₂ from the air to form calcium hydroxide and/or calcium carbonate. These reactions can result in expansion that could rupture storage containers. Care should be taken to keep moisture and air away from the materials. It is recommended to seal materials in a plastic bag with a twist or zip tie, then place in a secondary container such as a bucket with a tightly sealed lid.

Lime can react violently with strong acids.

Long-term storage in aluminum containers is not recommended, as calcium oxide may corrode aluminum over long periods of time.

Lime is considered non-hazardous when shipped via ground. It is listed as hazardous when shipped by air because it can react and corrode aluminum.

LIME SPILL CLEANUP

Always clean up lime in a dry manner. Water should only be used to flush small, residual amounts of dust.

Avoid the use of compressed air as it will create nuisance dust.

FIRE & COMBUSTIBLES CONSIDERATIONS

Lime is classified as non-flammable. However, the exothermic reaction of water and lime can create enough heat to ignite combustibles. Keep water and combustibles away from lime.

A small fire can be extinguished with a CO₂ fire extinguisher. Never try to fight a fire that has the possibility of getting out of control. Always have a clear exit path when fighting a fire.

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RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT



EYE PROTECTION



NIOSH N95
RESPIRATOR



PANTS



LONG SLEEVED
SHIRTS



GLOVES



BOOTS