

LIME

NIOSH Pocket Guide to Chemical Hazards

Calcium oxide		CAS 1305-78-8	
CaO		RTECS EW3100000	
Synonyms & Trade Names Burned lime, Burnt lime, Lime, Pebble lime, Quick lime, Unslaked lime		DOT ID & Guide 1910 157	
Exposure Limits	NIOSH REL: TWA 2 mg/m ³		
	OSHA PEL: TWA 5 mg/m ³		
IDLH 25 mg/m ³		Conversion	
Physical Description White or gray, odorless lumps or granular powder.			
MW: 56.1	BP: 5162°F	MLT: 4662°F	Sol: Reacts
VP: 0 mmHg (approx)	IP: NA		Sp.Gr: 3.34
FLP: NA	UEL: NA	LEL: NA	
Noncombustible Solid, but will support combustion by liberation of oxygen.			
Incompatibilities & Reactivities Water (liberates heat), fluorine, ethanol [Note: Reacts with water to form calcium hydroxide.]			
Measurement Methods NIOSH 7020; OSHA ID121			
Personal Protection & Sanitation Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contaminated/Daily Remove: When wet or contaminated Change: Daily Provide: Eyewash, Quick drench		First Aid (See procedures) Eye: Irrigate immediately Skin: Water flush immediately Breathing: Respiratory support Swallow: Medical attention immediately	
Respirator Recommendations NIOSH Up to 10 mg/m ³ : (APF = 5) Any dust and mist respirator Up to 20 mg/m ³ : (APF = 10) Any dust and mist respirator except single-use and quarter-mask respirators/ (APF = 10) Any supplied-air respirator Up to 25 mg/m ³ : (APF = 25) Any supplied-air respirator operated in a continuous-flow mode/(APF = 25) Any powered, air-purifying respirator with a high-efficiency particulate filter/(APF = 50) Any air-purifying, full-facepiece respirator with a high-efficiency particulate filter/(APF = 50) Any self-contained breathing apparatus with a full facepiece/(APF = 50) Any supplied-air respirator with a full facepiece Emergency or planned entry into unknown concentrations or IDLH conditions: (APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode/(APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus Escape: (APF = 50) Any air-purifying, full-facepiece respirator with a high-efficiency particulate filter/Any appropriate escape-type, self-contained breathing apparatus			

Exposure Routes inhalation, ingestion, skin and/or eye contact

Symptoms Irritation eyes, skin, upper respiratory tract; ulcer, perforation nasal septum; pneumonitis; dermatitis

Target Organs Eyes, skin, respiratory system

See also: INTRODUCTION