Material Safety Data Sheet

50% CALCIUM PEROXIDE

Product: CALCIUM PEROXIDE **Manufacturer** : Siam Aqua Tech Development System Co.,Ltd. **Emergency Telephone Nos.:** 66-83-1454522 (24 Hours) 66-2-0067571 (Office Hours)	
Product Information	
Synonyms	Calcium Peroxide
Formula	CaO_2 (CAS. No. 1305-79-9)
Product Uses	It is a versatile chemical and is used extensively as an oxidizing agent for food, environmental, cosmetics, starch modification, fisheries, aquacultures and other applications.
Additional Information	At room temperature, calcium peroxide is an extremely stable compound. The stability is affected if kept in elevated temperatures in humid atmosphere, or when wet.
Precautionary Information	
Health	Airborne dust is irritating to eyes, nose, throat and lungs. No significant long term inhalation hazard; irritation subsides after exposure ceases.
Physical	Reacts with moisture to liberate oxygen which initiates or promotes combustion in other materials.

	Decomposes to release oxygen at elevated temperatures.
Ingredients	
Calcium Peroxide (CaO_2), (CAS. No. 1305-79-9)	50%
Calcium hydroxide ($Ca(OH)_2$), (CAS. No. 1305-62-0)	30%
Other calcium salts	20%
Physical Data	
Melting Point	Decomposes on heating
Appearance and state	Cream colored powder
Odor	Odorless
Specific Gravity	Approx. 2.92 [Bulk density=27 Lbs/Cu.ft or 12 Kg/ 0.028317 Cu.m or **423.77 Kg/1 Cu.m**]
Solubility in water	Insoluble
pH (1% slurry)	12-13
Hazard Class	Oxidizer
Fire, Explosion and Reactivity Data	
Flash Point	Not applicable
Auto ignition Temperature	Not applicable
Extinguishing media	Water

Special Fire Fighting Procedures	Full protective clothing. Consider calcium peroxide as a strong oxidizer. Cool exposed containers with water.
Degree of Fire and Explosion Hazard	Non combustible, decomposes with liberation of oxygen.
Conditions to avoid	Excessive heat, moisture and grinding mixtures with organics
Major Contaminants that contribute to instability	Heat, moisture, Reducing agents
Incompatibility	With heavy metal
Routes of Exposure	
Eye Contact	Severely irritating to unwashed eyes; minimally irritating to washed eyes (rabbit)
Skin Contact	Non irritating (rabbit)
Skin Absorption	No significant hazard (rabbit)
Inhalation	1 Hr LC50 above 17 mg/L (rat)
Ingestion	No significant hazard Oral LD 50 above 5 gms/kg (rat)
Effects of Over Exposure	
Acute Exposure	Dust irritating to eyes, nose, throat and lungs
Emergency and First Aid Procedures	

Eyes	Immediately flush with large amount of water for at least 15 minutes. Check immediately with eye specialist.
Skin	Wash with large amount of water. If irritation persists, obtain medical attention
Inhalation	Remove to fresh air. Call a doctor.
Ingestion	If swallowed, drink plenty of water. See a doctor.
Decontamination Procedure	Wash with soap and water.
Notes to Doctor	Modest irritation is the only expected effect, and should have no serious consequences except perhaps in the case of direct eye contact. Contaminated external surfaces should be flooded with water, and direct eye contact deserves eye specialist check. If ingested, gastrointestinal irritation but not caustic burns are to be expected; dilution with water indicated as may be gastric evacuation via emesis or large if large doses or severe irritation is evident. Demulcents should be helpful. No systemic effects are expected.
Special Protection	
Ventilation	Use only in well ventilated area. Control dust in work place at or below recommended (5 mg/m^3)
Recommended Personnel Protective Equipment	

Respiratory	When exposure above established standard is likely, a respiratory protection such as dust mask be used.
Eyes	Cup type chemical goggles and/or full face mask
Gloves	Rubber or neoprene gloves
Footware	Rubber or neoprene footware
Emergency Accident	
Precautions and Procedure	Wash area with large amounts of water. Keep material cool and dry
Storage and Handling	
Storage and Handling	Avoid contamination and wear suitable protective clothing. Keep material dry. Store in a clean dry place. Do not store or expose to heat source such as steam pipe, radiant heaters, hot are vents, or near welding sparks. Avoid contact with reducing agents. Reacts with moisture. If compounded with organic or combustible material, be sure to exclude moisture. Keep containers tightly closed when not in use.
Disposal, Spill or Procedures	
Procedure for Release of Spill	Dilute with a large volume of water. Hold in a pond or diked area Dispose of according to method outlined below for waste disposal.
Waste Disposal Method	An acceptable method of disposal is to dilute with a large amount of water and allow the discharge into a suitable treatment system in accordance with all local and state environmental laws, rules, regulations,

	standards, and other requirements, because acceptable method of disposal may vary by location and because regulatory requirements may change. The appropriate regulatory agencies should be contacted prior to disposal.
Transportation	
Precautions	Drums/bags should be stacked properly in transit, make sure to avoid moisture and excessive heat
UN Number	1457
Type of Packages	
Type of Packages	Polyethylene bags/ Fiber drums with polyliner meeting specifications according to USA DOT code 21C115.