

# TECHNICAL DATA SHEET



## 75% Calcium Peroxide (Analytical Reagent Grade)

### Description

Calcium peroxide is a white or yellowish solid peroxide which slowly decomposes to release oxygen at a “controlled” rate when in contact of hydrous media. Calcium peroxide is of the most temperature stable inorganic peroxides. It decomposed slowly in moist air, is practically insoluble in water, and dissolves in acids, forming hydrogen peroxide. A 1:100 aqueous slurry has a pH of about 12. Except for its stable oxygen releasing capability, calcium peroxide has similar functions of other peroxides e.g. bleaching, disinfecting, deodorizing. Calcium peroxide is environmentally friendly due to its product properties.

### Technical Information

Chemical Name:	Calcium Peroxide
Molecular Formula:	CaO <sub>2</sub>
Molecular Weight:	72.08 g/mol
CAS Number:	1305-79-9

### Product Properties

Composition  
% Calcium Peroxide  
% Available Oxygen  
Bulk Density (g/L)  
% Lead metal  
% Moisture  
pH  
Appearance  
Packing

### Standard Specifications

CaO<sub>2</sub>, CaO, Ca(OH)<sub>2</sub>  
Minimum 75%  
Minimum 16.5%  
550-650  
Max. 0.001%  
Max. 2.0  
Approx. 11-12  
White or yellowish powder (or granular)  
20 kgs bag plus PE liner

### Applications

Calcium peroxide is an ecologically pure substance, which can be used in different fields of industry and agriculture.

#### In environmental protection it is used:

- For treating waste water and remediation of groundwater
- For decontaminating soil

#### In agriculture it is used:

- As fertilizing rich with oxygen
- For stimulating seed growth and their germinating power

- For pre sowing treatment of rice seed, which allows to do planting not by seedlings, but by dry seeds, coated with calcium peroxide. Such a technique sufficiently decreases work expenditure and increases crop capacity

**In aquaculture it is used:**

- To provide sufficient dissolved oxygen
- To adjust pH value
- To reduce the subaqueous content of ammonium and nitrogen
- To eliminate carbon dioxide and sulfureted hydrogen
- To prevent anaerobe for proliferation and killing nosogenetic bacteria, defecating aqueous body

**In poultry – raising it is used:**

- To decontamination of fodder
- To increase productivity, hens safety and improving their eggs

**In cattle-breeding it is used:**

- For prophylaxis of casein-stone formation in the abomasum and diarrhea with newborn calves
- As an antimicrobial effect
- For stimulating protective organism strength
- For normalizing activity of the alimentary canal
- For activating digestion work
- For great increasing live stock safety

**In precious metal production it is used:**

- For leaching precious metals in the formation of cyano complexes (particularly complexes with gold and/or silver) from ores, ore concentrates, and other particle-shaped, solid materials

**In bakery industry it is used:**

- To improve bread crumb and its porosity
- To keep moisture in dough during its baking
- To initiate yeast growth

**In dental care it is used:**

- For tooth bleaching

## Handling and Storage

### Storage

- Oxidizer. Store in a cool, well-ventilated area away from all source of ignition and out of direct sunlight. Store in a dry location away from heat.
- Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers.
- Protect from moisture. Do not store near combustible materials. Keep containers well sealed, seal only with original vent cap. Ensure pressure relief and adequate ventilation.
- Store separately from organics and reducing materials. Avoid contamination which may lead to decomposition.

### Handling

- Avoid contact with eyes, skin, and clothing. Use with adequate ventilation
- Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area
- Prevent contact with combustible or organic materials
- Label containers and keep them tightly closed when not in use
- Wash thoroughly after handling

### First – aid Measures

- Inhalation: Remove affected person to fresh air. Seek medical attention if effects persist.
- Eye contact: Flush eyes with running water for at least 15 minutes with eyelids held open. Seek specialist advice
- Skin contact: Wash affected skin with soap and mild detergent and large amounts of water
- Ingestion: If the person is conscious and not convulsing, give 2-4 cupful of water to dilute the chemical and seek medical attention immediately. Do not inducing vomiting

### Shipping Information

- Proper shipping name: Calcium Peroxide
- UN Number: UN1457
- Hazard Class: 5.1
- Labels 5.1 (Oxidizer)
- Packing Group: II

**Please read the MSDS for this chemical before using**