

Section 1: Identification

PRODUCT IDENTIFIER: Cerium Oxide Slurry

CHEMICAL FAMILY: Abrasive

EMERGENCY PHONE: CHEMTREC 800-424-9300 (US) Day or night
Customer No. 16568

MANUFACTURER: PACE Technologies
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Section 2: Hazard(s) Identification

GHS CLASIFICATION:	Not a hazardous substance or mixture
PICTOGRAM(s):	N/A
SIGNAL WORD:	N/A
HAZARD STATEMENTS:	N/A
PRECAUTIONARY STATEMENTS:	P261-Avoid breathing dust/fume/gas/mist/vapors/spray. P264-Wash hands thoroughly after handling. P280: Wear protective gloves/eye protection/face protection. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P501- Dispose of contents/container to Federal, State and Local Regulations

Section 3: Composition/Information on Ingredients

CHEMICAL	CAS NUMBER	% PRESENT
Propylene glycol	57-55-6	3
Aluminum Oxide	1344-28-1	20

Phosphate Buffer in Water (pH ~7)	Mixture	77%
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*Note: The phosphate buffer may include salts such as sodium phosphate or potassium phosphate (not individually hazardous at low concentrations) and water as the balance.

Section 4: First-Aid Measures

EYES: Rinse eyes gently for at least 15 minutes, lifting upper and lower eyelids. Seek medical attention if irritation continues.

SKIN: Wash exposed skin thoroughly with soap and water. Remove contaminated clothing. Seek medical attention if irritation occurs.

INHALATION: Move person to fresh air. If breathing is difficult, provide oxygen. Seek medical attention if symptoms persist.

INGESTION: Rinse mouth. Do not induce vomiting unless directed by medical personnel. Seek medical attention.

Section 5: Fire-Fighting Measures

EXTINGUISHING MEDIA: Use water spray, foam, dry chemical, or CO₂, depending on surrounding fire.

SPECIAL HAZARDS: The dispersion is non-flammable; however, if dried, CeO₂ dust is inert but fine dust may pose a mechanical explosion risk under extreme conditions (low likelihood).

PROTECTIVE EQUIPMENT: Firefighters should wear full protective clothing and self-contained breathing apparatus.

Section 6: Accidental Release Measures

PERSONAL PRECAUTIONS: Use proper protective equipment (see Section 8). Avoid generating dust or spray mist. Ensure adequate ventilation.

ENVIRONMENTAL PRECAUTIONS: Prevent entry into drains, soil, or waterways.

CLEANUP METHODS:

Contain spill. Absorb with inert material (e.g., sand) if necessary and place into properly labeled containers for disposal. Avoid creating dust or aerosols.

Section 7: Handling and Storage

HANDLING:

Avoid breathing dust, mists, or spray. Use local exhaust ventilation if necessary. Wear appropriate protective equipment.

STORAGE:

Store in a cool, dry, well-ventilated area. Keep container tightly closed. Protect from drying out to avoid dust formation.

Section 8: Exposure Controls/ Personal Protection

OCCUPATIONAL EXPOSURE LIMITS:

No specific OSHA PEL or ACGIH TLV for cerium oxide. Use general nuisance dust limits:

- Total dust: 15 mg/m³ (OSHA PEL)
- Respirable dust: 5 mg/m³ (OSHA PEL)

ENGINEERING CONTROLS:

Use local exhaust ventilation to minimize dust.

PPE:

- Respiratory: NIOSH-approved particulate respirator if airborne dust is present.
- Eyes: Safety goggles or face shield.
- Skin: Protective gloves and long-sleeved clothing.
- Hygiene: Wash hands before breaks and after handling.

Section 9: Physical and Chemical Properties

APPEARANCE:	Opaque suspension (milky to pale dispersion) of pale yellow/white CeO ₂ powder in clear aqueous solution.
MELTING POINT:	Not relevant (aqueous).
BOILING POINT:	~100 °C (aqueous carrier)
SPECIFIC GRAVITY (H2O = 1)	~ dependent on concentration (approx. ~1.0-1.2 g/mL depending on dispersion)
ODOR:	None or negligible.
pH:	~7 (phosphate buffered)
SOLUBILITY IN WATER (% BY VOLUME)	CeO ₂ : Insoluble/very low solubility; Propylene glycol: miscible with water; aqueous phase: soluble.
FLASH POINT:	Not applicable (aqueous)

Section 10: Stability and Reactivity

REACTIVITY:	Not reactive under normal conditions of use.
CHEMICAL STABILITY:	Stable under recommended storage and handling.
CONDITIONS TO AVOID:	Avoid drying to powder if possible (to reduce dust hazard).
INCOMPATIBLE MATERIALS:	Strong reducing agents (for CeO ₂), very strong acids or base extremes may affect stability of buffer.
HAZARDOUS POLYMERIZATION	None known under normal conditions.

Section 11: Toxicological Information

EFFECTS OF EXPOSURE:

INHALATION:	If dust/mist generated, may cause respiratory irritation.
SKIN/EYE CONTACT:	May cause mechanical irritation; eye contact may cause irritation.
CHRONIC EFFECTS:	No known classification for carcinogenicity or reproductive toxicity for CeO ₂ in this mixture form.
ACCUTE TOXICITY DATA:	CeO ₂ : High LD ₅₀ (oral >5000 mg/kg in rat)

Section 12: Ecological Information

MOBILITY IN SOIL:	Limited due to low solubility of CeO ₂ .
PERSISTENCE/ DEGRADABILITY:	Inorganic, non-biodegradable in typical sense.
BIACCUMULATION:	Low
ECO-TOXICITY:	CeO ₂ : fish LC ₅₀ >100 mg/L (72h)
OTHER ADVERSE EFFECTS:	None known.

Section 13: Disposal Considerations

- None known.
- Avoid release to environment.
- If dried, treat powder as inert solid and dispose in sealed containers via licensed waste handling.

Section 14: Transportation Information

DOT (CFR49):	NOT REGULATED.
IATA (air):	NOT REGULATED.

IMDG (ocean): NOT REGULATED.

HAZARD CLASSIFICATION: NON-HAZARDOUS.

PACKING GROUP: NOT REGULATED.

UN/NA CODE: NOT REGULATED.

Section 15: Regulatory Information

TSCA: Listed

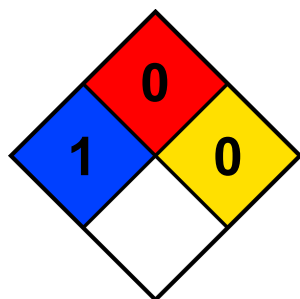
SARA Title III: Not listed

**CALRONIA
PROPOSITION 65:** Not listed

OSHA: Not classified as hazardous

Section 16: Other Information

16.1 NFPA 704



Top, Flammability: 0 – Minimal Hazard

Left, Health Hazard: 1 – Slight Hazard

Right, Reactivity: 0 – Minimal Hazard

Bottom, Special Notice: N/A

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