

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
3601 E. 34th St., Tucson, AZ 85718S
Tucson, Arizona USA
Phone: +1 520-882-6598
FAX: +1 520-882-6598

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%

*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 CeO₂), 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 CeO₂ in this mixture form.

ACCUTE TOXICITY DATA: CeO₂: High LD₅₀ (oral >5000 mg/kg in rat)

Section 12: Ecological Information

MOBILITY IN SOIL: Limited due to low solubility of CeO₂.

**PERSISTENCE/
DEGRADABILITY:** Inorganic, non-biodegradable in typical sense.

BIACCUMULATION: Low

ECO-TOXICITY: CeO₂: fish LC₅₀ >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

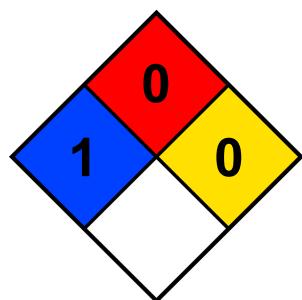
SARA Title III: Not listed

**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

Disclaimer:

PACE Technologies, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. PACE TECHNOLOGIES, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, PACE TECHNOLOGIES, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.

DATE REVISED: 11/13/2025 DZ