



## MATERIAL SAFETY DATA SHEET

Current Revision: 4, 9/6/2016	Prepared By: Ben Ward, Product Engineer
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### I. IDENTIFICATION

<b>EMERGENCY PHONE:</b> <b>CHEMTREC- (800) 424-9300 CCN 19481</b>	Salem Fabrication Supplies 5901 Gun Club Road Winston-Salem, NC 27103 Information: <b>(800) 234-1982</b>
<b>PRODUCT NAME:</b> Status	
<b>SYNONYMS:</b> Cerium Oxide, Rare Earth Oxide/Fluoride	

**Recommended Use:**

Polishing glass, ceramic, and electronic/optical products.

**Restrictions:**

N/A

### II. HAZARD IDENTIFICATION

**Classification (§1910.1200):**

Not a hazardous substance according to GHS standards.

**Signal Word/Symbols:**

**GO BEYOND THE EDGE**

**NORTH CAROLINA – HQ**

5901 Gun Club Road  
Winston-Salem, NC 27103  
**Office:** 800.234.1982 | 336.766.1104

**CALIFORNIA**

10125 Shoemaker Avenue  
Santa Fe Springs, CA 90670  
**Office:** 800.445.6339 | 562.944.6155

**PENNSYLVANIA**

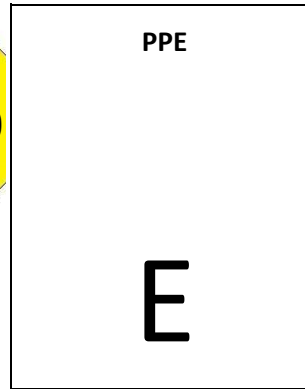
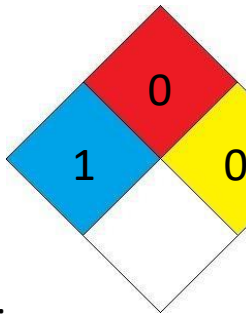
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New Kensington, PA 15068  
**Office:** 724.212.3749

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Vancouver, WA 98682  
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**Hazard Statement:**

N/A

**Precautionary Statement:**

N/A

**Miscellaneous Hazards:**

Slightly irritating to eyes.  
NO particular fire or explosion hazard.

**Unknown Acute Toxicity Statement:**

N/A

**III.COMPOSITION**

CHEMICAL NAME:	COMMON NAMES:	CAS:	% BY WEIGHT:
Cerium Oxide	Cerium, Ceria	1306-38-3	>60
Phosphoric acid		13778-59-1	<30
Lanthanum Oxide		1312-81-8	<30
Rare Earth Fluorides		N/A	15-20

\*Information withheld as a trade secret **Classified**

**Impurities and Additives:**

N/A

**IV.FIRST AID MEASURES**

**Inhalation:**

If inhaled, move person into fresh air. Call a physician if symptoms persist.

**Skin Contact:**

Wash off with soap and water. Call a physician if irritation persists.

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**Eye Contact:**

Rinse with running water whilst keeping the eyes wide open (at least 15 minutes). Consult a physician if irritation persists.

**Ingestion:**

If conscious, drink plenty of water. Never give anything by mouth to an unconscious person. Seek medical advice. Do not leave the victim unattended.

**Symptoms/Effects:**

Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema, or bronchitis.

**Level Of Medical Attention Needed:**

Contact physician if symptoms persist. No specific antidote known. All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

## V. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:**

Water and foam. Not combustible. Use extinguishing measures that are appropriate to the surrounding environment. Collect contaminated fire extinguishing water separately. Do not discharge into drains.

**Unsuitable Extinguishing Media:**

None known.

**Specific Hazards:**

None known.

**Special Protective Equipment:**

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Gloves, in the case of dust and/or fumes, use NIOSH/MSHA approved self-contained breathing apparatus and protective suit.

## VI. ACCIDENTAL RELEASE MEASURES

### Personal Precautions:

Keep in well ventilated area. Avoid skin contact. Wear protective equipment.

### Protective Equipment:

Wear suitable gloves, safety glasses, and protective clothing. If dust is present wear respirator.

### Emergency Procedures:

Wear protective equipment and wash with water if necessary.

### Methods for Cleanup/Removal:

Dam up and use non sparking tools. Sweep up and shovel to prevent buildup. Avoid contact with skin and eyes and wear a respirator if there is dust.

## VII. HANDLING AND STORAGE

### Handling Precautions:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### Safe Storage Conditions:

Keep in properly labeled containers. Store in a closed container. Store in a dry area.

### Incompatibilities:

Strong acids.

## VIII. EXPOSURE CONTROLS AND PROTECTIVE EQUIPMENT

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<p><b>OSHA:</b></p> <p>PEL: 15 mg/m3 Total Dust 5 mg/m3 Resp Fraction</p> <p>TWA: 2.5 mg/m3 Fluorine</p>	<p><b>ACGIH TLV:</b></p> <p>TWA: 2.5 mg/m3 Fluorine BEI</p> <p>2 mg/l Fluoride Urine Prior to shift (16 h after)</p> <p>3 mg/l Fluoride Urine End of shift (As soon as exposure ceases)</p>	<p><b>OTHER EXPOSURE LIMITS:</b></p> <p>NIOSH IDLH 250 mg/m3 Rare Earth Fluorides</p>
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**Appropriate Engineering Controls:**

Apply technical measures to comply with the occupational exposure limits. Local exhaust Dust must be extracted directly at the point of origin. Respirator with a dust filter when exposure limits exceed listed values.

**Personal Protective Measures:**

Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material. Safety glasses with sideshields. Long sleeved clothing.

**IX. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:**

Beige white powder.

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<b>Odor:</b> None	<b>Odor Threshold:</b> N/A	<b>Ph:</b> N/A
<b>Melting/Freezing Point:</b> >932 °F (>500 °C)	<b>Boiling Point:</b> N/A	<b>Boiling Range:</b> N/A
<b>Flash Point:</b> None	<b>Evaporation Rate:</b> None	<b>Flammability (Solid, Gas):</b> N/A
<b>Upper/Lower Flammability/Explosive Limit:</b> None	<b>Vapor Pressure:</b> None/solid	<b>Vapor Density:</b> None/solid
<b>Relative Density:</b> 6.8	<b>Solubility (ies):</b> None known	<b>Partition Coefficient: NOctanol/Water:</b> N/A
<b>Auto Ignition Temperature:</b> N/A	<b>Decomposition Temperature:</b> N/A	<b>Viscosity:</b> Not applicable, solid

## X.STABILITY AND REACTIVITY

### Reactivity:

Stable under recommended storage conditions.

### Chemical Stability:

Stable under normal conditions.

### Possibility of Hazardous Reactions:

None known.

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**Conditions to Avoid: Static Discharge, Shock, Vibrations, Etc.**

Dust generation and incompatible materials.

**Incompatible Materials:**

Strong acids.

**Hazardous Decomposition Products:**

None known.

## XI. TOXICOLOGICAL INFORMATION

**Possible Exposure Routes (Inhalation Etc.):**

Inhalation, skin contact, ingestion, and eye contact.

**Symptoms Related To Toxicological Characteristics: Irritation**

**Delayed, Immediate, and Chronic Effects:**

Irritation may persist.

**Numerical Toxicity Measurements:**

ACUTE ORAL TOXICITY: LD50 Oral: > 2,000 mg/kg - rat, female *OECD*

*Test Guideline 423, not hazardous according to GHS.*

ACUTE INHALATION TOXICITY: LC50 - 4 h: 5.05 mg/l - rat, male and female *OECD*

*Test Guideline 403, not hazardous according to GHS.*

ACUTE DERMAL TOXICITY: LD50: > 2,000 mg/kg - rabbit, male and female *OECD*

*Test Guideline 402, not hazardous according to GHS.*

SKIN CORROSION/IRRITATION: Rabbit

*According to a standardized method, not hazardous according to GHS.*

SERIOUS EYE DAMAGE/EYE IRRITATION: by analogy, rabbit

*According to a standardized method, not hazardous according to GHS.*

RESPIRATORY OR SKIN SENSITIZATION: Magnusson and Kligman method - guinea pig *OECD*

*Test Guideline 406, not hazardous according to GHS.*

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GENOTOXICITY IN VITRO: Mutagenicity (Salmonella typhimurium - reverse mutation assay) with and without metabolic activation.

*OECD Test Guideline 471, negative*

GENOTOXICITY IN VITRO: gene mutation study in mammalian cells, strain: Chinese hamster fibroblasts with and without metabolic activation.

*OECD Test Guideline 476, negative*

GENOTOXICITY IN VIVO: In vivo micronucleus test - mouse, male and female, oral

*OECD Test Guideline 474, negative STOT-REPEATED*

EXPOSURE:

NOEL Oral: 1000 mg / kg / day - rat, male and female *OECD*

*Test Guideline 422, no systemic toxicity observed. NOAEC*

90 Day Inhalation: 5 mg/m<sup>3</sup> - rat, male and female *OECD*

*Test Guideline 413, no systemic toxicity observed.*

**NTP/LARC/OSHA Known Carcinogen:**

No genotoxicity, carcinogenic, mutagenic, or teratogenic effects known.

## XII.ECOLOGICAL INFORMATION

**Ecotoxicity:**

**AQUATIC**

ACUTE TOXICITY TO FISH:

LL50 - 96 h: > 100 mg/l - *Oncorhynchus mykiss* (rainbow trout)

Method: OECD Test Guideline 203

NOEC - 96 h: > 100 mg/l - *Brachydanio rerio* (zebrafish)

According to the data on the components.

ACUTE TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES:

LL50 - 48 h: > 100 mg/l - *Daphnia magna* (Water flea)

Method: OECD Test Guideline 202

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**TOXICITY TO AQUATIC PLANTS:**

EL50 - 72 h: > 100 mg/l - *Desmodesmus subspicatus* (green algae)

Method: OECD Test Guideline 201

Growth rate

**TOXICITY TO MICROORGANISMS:**

NOEC - 3 h:  $\geq$  1,003.8 mg/l - activated sludge

Respiration inhibition

Method: OECD Test Guideline 209

**CHRONIC TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES:**

*Daphnia magna* (Water flea)

Reproduction Test

Method: OECD Test Guideline 211

Does not have any known long term adverse effects on the aquatic organisms tested.

**TERRESTRIAL**

**TOXICITY TO SOIL DWELLING ORGANISMS:**

NOEC:  $\geq$  1,000 mg/kg - 14 Days - *Eisenia fetida* (earthworms)

Mortality

Method: OECD Test Guideline 207

NOEC:  $\geq$  1,000 mg/kg - 28 d - soil micro-organisms

Respiration inhibition

Method: OECD Test Guideline 217

**TOXICITY TO TERRESTRIAL PLANTS:**

*Avena sativa* (oats)

*Lactuca sativa* (lettuce)

*Brassica rapa*

NOEC:  $\geq$  1,000 mg/l - 17 Days

Method: OECD Test Guideline 208

**Persistence and Degradability:**

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Not applicable, mixture of inorganic substances.

**Bioaccumulative Potential:**

Not bioaccumulable.

**Soil Mobility:**

Adsorbs into soil, will stay in soil and sedimentary regions.

**Other Adverse Effects:**

Not classified as dangerous to the environment. No known effects.

**XIII. DISPOSAL CONSIDERATIONS**

**Waste Residue and Disposal:**

Clean packaging with cold water. Dispose in accordance with local, state, and federal regulations. Changing or processing this product will make this SDS obsolete.

**XIV. TRANSPORT INFORMATION**

<b>UN Number:</b> N/A	<b>UN Proper Shipping Name:</b> Not hazardous.	<b>Transport Hazard Class (es):</b> Not regulated as hazardous.
<b>Packing Group:</b> None	<b>Environmental Hazards:</b> None	<b>Transport in Bulk (Annex LI MARPOL 73/78 and IBC Code)</b> N/A

**Special Precautions:**

None

**XV. REGULATORY INFORMATION**

**Environmental/ Health/ Safety:**

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United States TSCA Inventory: y (positive listing)  
On TSCA Inventory.

Canadian Domestic Substances List (DSL): y (positive listing)  
All components of this product are on the Canadian DSL.

Australia Inventory of Chemical Substances (AICS): y (positive listing)  
On the inventory, or in compliance with the inventory.

Japan. CSCL - Inventory of Existing and New Chemical Substances: y (positive listing)  
On the inventory, or in compliance with the inventory.

Korea. Korean Existing Chemicals Inventory (KECI): y (positive listing)  
On the inventory, or in compliance with the inventory.

China. Inventory of Existing Chemical Substances in China (IECSC): y (positive listing)  
On the inventory, or in compliance with the inventory.

## XVI. OTHER INFORMATION

This information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of Salem Fabrication Supplies. It relates only to the specific material designated herein, and does not relate to use in combination with any other material or in any process. Salem Fabrication Supplies assumes no legal responsibility for use of or reliance upon this information.

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