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Material Safety Data Sheet

CVC™ Series 100 P Cerium Oxide Powder (all sizes)

Section 1: Identification

Date Effective..... January 01, 2011
(most recent revision)

Chemical Name/Synonyms... Ceria powder, Cerium oxide polishing powder,
Cerium oxide compound, glass polishing compound

Description: Powder

Emergencies


Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...

Worldwide phone: 1-(703)-527-3887

Worldwide FAX: 1-(703)-741-6090

Toll-free phone: 1-(800)-424-9300 USA only

Hazardous Material Information System USA	Health	1	National Fire Protection Association USA	
	Fire Hazard	0		
	Reactivity	0		
	Personal Protection			

NFPA Rating:

(estimated) Health: 1 ; Flammability: 0 ; Reactivity: 0

Section 2: Composition

Component Name	CAS #	wt. Percent	OSHA Hazard
Rare Earth Oxide		35 - 40	Y
Zirconium Dioxide	1314-23-4	35 - 40	Y
Calcium Carbonate	1317-65-3	1 - 5	Y
Strontium Carbonate	1633-05-2	1 - 5	Y

Rare Earth Oxide is a mixture of Cerium Oxide (1306-38-3), Lanthanum Oxide (1312-81-8), Praseodymium Oxide (12037-29-5), and Neodymium Oxide (1313-97-9)

Section 3: Hazard Identification

Emergency overview: May create dusty conditions, which may aggravate existing dermatitis.

Appearance: Cream to Brown powder

Flash Point: Not available

Potential Health Effects

Target Organs: Lungs, Bones

Eye: May cause minor irritation.

Skin: May cause drying of the skin.

Ingestion: Not expected to be an ingestion hazard.

Inhalation: May be harmful if inhaled. May be irritating to mucous membranes and respiratory tract, causing cough and/or shortness of breath.

Chronic: Not available

Section 4: First Aid Measures

Eyes: In case of eye contact flush eyes with copious amounts of water for 20 to 30 minutes while holding eyelids open. Seek medical attention.

Skin: Wash with soap and copious amounts of water.

Ingestion: Wash out mouth with water providing person is conscious and alert. Seek medical attention.

Inhalation: Remove to fresh air. If breathing becomes difficult, seek medical attention

Section 5: Fire Fighting Measures

General Information:

Wear self-contained breathing apparatus and protective clothing to prevent eye and skin contact. Emits toxic fumes under fire conditions.

Extinguishing Media:

Water spray, carbon dioxide, dry chemical powder, or appropriate foam

Section 6: Accidental Release Measures

General Information:

Avoid generating dust. Avoid inhalation. Avoid skin and eye contact.

Spills/Leaks:

Sweep or scoop up material and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7: Handling and Storage

Handling: Avoid inhalation. Wear suitable clothing to avoid eye or skin contact. Avoid prolonged or repeated exposure. Use adequate ventilation.

Storage: Store in closed containers in cool, dry area.

Section 8: Exposure Controls and Personal Protection

Engineering Controls: Safety shower and eye bath. Mechanical ventilation to meet exposure limits.

Exposure Limits:

Chemical Name	ACGIH	OSHA - Final PELs
All Particulates	10 mg/m ³ (total)	10 mg/m ³ (total)
	5 mg/m ³ (respirable)	5 mg/m ³ (respirable)
Water	not established	not established

Personal Protective Equipment

Eyes: Chemical splash goggles

Skin: Protective gloves

Clothing: Suitable to avoid skin contact

Respirators: Respiratory protection is not required. Where protection from nuisance levels of dust is desired, use NIOSH approved, type N95 (US) or Type P1(EN 143) respirators.

Section 9: Physical and Chemical Properties

Physical State: Powder

Appearance: Cream to Brown

Odor: Odorless

pH: ~7.0

Vapor Pressure: Not known

Vapor Density: Not known

Evaporation Rate: Not known

Viscosity: Not known

Boiling Point: Not applicable

Freezing/Melting Point: Not applicable

Autoignition Temperature: Not available

Flash Point: Not available

Decomposition Temperature: Not available

Explosion Limits:

Lower: Not available

Upper: Not available

Solubility in water: Insoluble

Specific Gravity/Density: 5.6, where water =1

Molecular Formula: Not available

Molecular Weight: Not available

Section 10: Stability and Reactivity

Chemical Stability: Stable

Conditions to Avoid: Moisture

Incompatibility with Other Materials: Strong acids, Strong bases, Chlorine

Hazardous Decomposition of Products: Rare Earth Oxide which is a mixture of Cerium Oxide (1306-38-3), Lanthanum Oxide (1312-81-8), Praseodymium Oxide (12037-29-5), and Neodymium Oxide (1313-97-9)

Hazardous Polymerization: Will not occur

Section 11: Toxicological Information

RTECS#: Not available

LD₅₀/LC₅₀ Information: Not known

Carcinogenicity:

NTP: Not listed

OSHA: Not listed

IARC: Not listed

Teratogenicity:

Not available

Reproductive Effects:

Not available

Neurotoxicity:

Not available

Mutagenicity:

Not available

Other Studies:

Not known

Section 12: Ecological Information

No information available

Section 13: Disposal Considerations

RCRA P-Series: Not listed

RCRA U-Series: Not listed

Ordinary solid waste methods recommended, if permitted, under federal, state and local regulations.

Section 14: Transport Information

US DOT Hazard Class: Not regulated

IATA (for international shipments): Not regulated

Section 15: Regulatory Information

United States:

TSCA:

All ingredients of this product are on the TSCA Inventory.

Health & Safety Reporting List:

None of the ingredients of this product is on the Health & Safety Reporting List.

Chemical Test Rules

None of the ingredients of this product is under a Chemical Test Rule.

Section 12b:

None of the ingredients of this product is listed under TSCA Section 12b.

TSCA Significant New Use Rule:

None of the ingredients of this product has a TSCA SNUR.

CERCLA Section 103:

None of the ingredients of this product is listed under CERCLA Section 103.

SARA:

Section 302 (RQ)

None of the ingredients of this product has an RQ.

Section 302 (TPQ)

None of the ingredients of this product has a TPQ.

Section 313

Rare Earth Oxide which is a mixture of Cerium Oxide (1306-38-3), Lanthanum Oxide (1312-81-8), Praseodymium Oxide (12037-29-5), and Neodymium Oxide (1313-97-9) is listed under SARA Section 313.

Clean Air Act:

None of the ingredients in this product is listed under the Clean Air Act.

Clean Water Act:

None of the ingredients of this product is listed under the Clean Water Act.

State (Individual states in the USA)

Rare Earth Oxide which is a mixture of Cerium Oxide (1306-38-3), Lanthanum Oxide (1312-81-8), Praseodymium Oxide (12037-29-5), and Neodymium Oxide (1313-97-9) is listed on the Pennsylvania Right-to-Know list.

This product or its ingredients have been evaluated for New Jersey, Pennsylvania, and California Prop 65 supplier notification requirements. Substances that are subject to notification requirements, if any, are listed below.

Components Cal Prop65:

Rare Earth Oxide: Radionuclides

Canadian WHMIS

WHMIS hazard class: D2B Toxic materials.

International Inventories

TSCA 8(b): Listed or exempt.

Canadian DSL: Listed or exempt.

EINECS: Listed or exempt.

Phillipines (PICCS): Listed.

Japan (ENCS): Not listed.

Korea (KECL): Listed.

China (IECS): Listed.

Australia (AICS): Listed.

European/International Regulations:

European Labeling in Accordance with EC Directives

None of the ingredients of this product is listed.

WGK (Water Danger/Protection):

None of the ingredients of this product is listed.

DSL/NDSL:

Rare Earth Oxide which is a mixture of Cerium Oxide (1306-38-3), Lanthanum Oxide (1312-81-8), Praseodymium Oxide (12037-29-5), and Neodymium Oxide (1313-97-9 is listed on the DSL List.

Section 16: Other Information

If this product should be used in ways that are outside of the intended applications in surface finishing and/or polishing, and if it is going to be formulated into some other system, so that it becomes just another component of that other system, read the MSDS sheets for the other components before blending as the resulting mixture may have the hazards of all of its parts.

Disclaimer of Liability:

The information and recommendations set forth above are taken from sources believed to be accurate as of the date hereof, however CV Nanotechnology, Inc. makes no warranty with respect to the accuracy of the information or the suitability of the recommendations, and assume no liability to any user thereof. The information contained in this MSDS sheet does not constitute a hazard assessment and should not be used in place of the user's own assessment of work place risks as required by other health and safety legislation. It is the user's responsibility to determine the suitability of this product, data and the information with the applicable laws and regulations.