

## MATERIAL SAFETY DATA SHEET

**Company Name:** C.R. Laurence Australia  
**Address:** 9 Shale Place  
**City / State / Zip:** Eastern Creek, NSW 2766  
**AU Phone:** 1800-424-275  
**Vendor Update:** 2/12/2007  
**Date Prepared:** 2/12/2007  
**MSDS Number:** C0301 ; C0305 ; C0310 ; C0453 ; CDS72 ;

### I. CHEMICAL PRODUCT IDENTIFICATION

**Product Name:** Cerium Oxide Polishing Compound  
**HMIS Ratings:**  
 Health: Slight(1)  
 Flammability: Minimal(0)  
 Instability/Reactivity: Minimal(0)  
 Personal Protective Equipment: X  
**NFPA Ratings:**  
 Health: Slight(1)  
 Flammability: Minimal(0)  
 Instability/Reactivity: Minimal(0)

**Other:** EMERGENCY OVERVIEW  
 CAUTION: PRODUCT DUST MAY BE IRRITATING TO EYES, SKIN AND RESPIRATORY SYSTEM  
 COLOR: RED-BROWN  
 PHYSICAL STATE: POWDER  
 ODOR: ODORLESS

### II. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical Ingredients	C.A.S. Number	% By Weight	ACGIH TLV TWA/STEL	OSHA PEL TWA/STEL	Other TWA/STEL	LD50	LC50
KAOLIN	1332-58-7	30 - 40	2 mg/m <sup>3</sup> (RESPIRABLE FRACTION)	15 mg/m <sup>3</sup> TWA (TOTAL DUST); 5 g/m <sup>3</sup> TWA (RESPIRABLE)			
<b>Notes</b>							
RARE EARTH OXIDE*	*	50 - 60	10 mg/m <sup>3</sup> TOTAL; 3 mg/m <sup>3</sup> (RESPIRABLE)	15 mg/m <sup>3</sup> (TOTAL); 5 g/m <sup>3</sup> (RESPIRABLE)			
<b>Notes</b>	* RARE EARTH OXIDE IS A MIXTURE OF CERIUM OXIDE (1306-38-3), LANTHANUM OXIDE (1312-81-8), PRASEODYMLUM OXIDE (12037-29-5), AND NEODYMIUM OXIDE (1313-97-9)						
RARE EARTH FLUORIDE	**	10 - 20	2.5 mg/m <sup>3</sup> as F	2.5 mg/m <sup>3</sup> as F			
<b>Notes</b>	RARE EARTH FLUORIDE IS A MIXTURE OF CERIUM FLUORIDE (7758-88-5) AND LANTHANUM FLUORIDE (13709-38-1)						
<b>Other:</b>	THIS MATERIAL CONTAINS VERY LOW LEVELS OF NATURALLY OCCURRING RADIOACTIVE MATERIAL (NORM).						

### III. HAZARDS IDENTIFICATION PRIMARY ROUTE OF ENTRY

**Eyes:** MAY CAUSE SLIGHT IRRITATION.  
**Skin:** PROLONGED SKIN CONTACT MAY CAUSE SKIN IRRITATION AND/OR DERMATITIS.  
**Ingestion:** MAY IRRITATE DIGESTIVE TRACT.  
**Inhalation:** DUST IRRITATING TO RESPIRATORY TRACT.  
**Medical Conditions**  
**Aggravated by Exposure:**

#### IV. FIRST AID MEASURES

<b>Eyes:</b>	RINSE IMMEDIATELY WITH PLENTY OF WATER, ALSO UNDER THE EYELIDS. GET MEDICAL ATTENTION IF IRRITATION DEVELOPES.
<b>Skin:</b>	WASH OFF IMMEDIATELY WITH SOAP AND PLENTY OF WATER. REMOVE AND WASH CONTAMINATED CLOTHING BEFORE RE-USE. IF SYMPTOMS PERSIST, CALL A PHYSICIAN.
<b>Ingestion:</b>	DRINK PLENTY OF WATER. DO NOT INDUCE VOMITING WITHOUT MEDICAL ADVICE. CONSULT A PHYSICIAN.
<b>Inhalation:</b>	MOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, GIVE OXYGEN. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF SYMPTOMS PERSIST, CALL A PHYSICIAN.
<b>Other:</b>	NOTE TO PHYSICIAN: TREAT SYMPTOMATICALLY. LANTHANIDES, BECAUSE OF THEIR HIGH DENSITY, CAN PRODUCE ABNORMALITIES ON CHEST X-RAY. LANTHANIDES, GENERALLY ARE NOT FELT TO BE FIBROGENIC AND THE LESIONS TYPICALLY HAVE LITTLE OR NO CLINICAL SIGNIFICANCE. HOWEVER, OCCASIONAL CASES OF PNEUMOCONIOSIS HAVE BEEN REPORTED.

#### V. FIRE FIGHTING MEASURES

<b>Flash Point:</b>	NON COMBUSTIBLE
<b>Test Method:</b>	N/A
<b>Lower Flammability Limit:</b>	N/A
<b>Upper Flammability Limit:</b>	N/A
<b>Extinguishing Agents:</b>	USE EXTINGUISHING MEASURES THAT ARE APPROPRIATE TO LOCAL CIRCUMSTANCES AND THE SURROUNDING ENVIRONMENT.
<b>Unusual Fire or Explosion Hazards:</b>	NONE KNOWN
<b>Fire Fighting Procedures:</b>	AS IN ANY FIRE, WEAR SELF-CONTAINED BREATHING APPARATUS PRESSURE-DEMAND, NIOSH (APPROVED OR EQUIVALENT) AND FULL PROTECTIVE GEAR.

#### VI. ACCIDENTAL RELEASE MEASURES

<b>Containment/Cleanup:</b>	CLEAN UP PROMPTLY BY SCOOP OR VACUUM. WEAR PERSONAL PROTECTIVE EQUIPMENT. KEEP IN SUITABLE, CLOSED CONTAINERS FOR DISPOSAL
<b>Other:</b>	PERSONAL PRECAUTIONS: AVOID DUST FORMATION. EVACUATE AREA OF ALL UNNECESSARY PERSONNEL. AVOID CONTACT WITH SKIN, EYES AND CLOTHING. USE PERSONAL PROTECTIVE EQUIPEMENT. ENVIRONMENTAL PRECAUTIONS: PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS. DO NOT FLUSH INTO SURFACE WATER OR SANITARY SEWER SYSTEMS.

#### VII. HANDLING AND STORAGE

<b>Other:</b>	HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICE. AVOID DUST FORMATION. AVOID CONTACT WITH SKIN, EYES AND CLOTHING. WASH HANDS THOROUGHLY BEFORE EATING, DRINKING OR
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SMOKING.  
 STORAGE:  
 KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE.

#### VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Eyes:** SAFETY GOGGLES WITH SIDE-SHIELDS.

**Skin:** LIGHTWEIGHT PROTECTIVE CLOTHING.  
 HAND PROTECTION: IMPERVIOUS GLOVES.

**Respiratory:** USE NIOSH APPROVED RESPIRATOR WHEN VENTILATION IS INADEQUATE.

**Engineering:** PROVIDE APPROPRIATE EXHAUST VENTILATION AT MACHINERY AND AT PLACES WHERE DUST OR FUMES CAN BE GENERATED.

**Other:** HYGIENE MEASURES: WASH CONTAMINATED CLOTHING BEFORE RE-USE.

#### IX. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** RED-BROWN

**Boiling Point:** >2,300.0°C

**pH:** NO DATA AVAILABLE

**Solubility in Water:** INSOLUBLE

**Specific Gravity:** 5.4 (H<sub>2</sub>O = 1)

**Vapor Pressure:** NO DATA AVAILABLE

**Physical State:** POWDER

**Volatile Content:** NO DATA AVAILABLE

**Other:** MELTING POINT/RANGE: >2300°C  
 EVAPORATION RATE: NO DATA AVAILABLE

#### X. STABILITY AND REACTIVITY

**Stability:** STABLE AT NORMAL CONDITIONS

**Hazardous Polymerization:** WILL NOT OCCUR

**Hazardous Decomposition:** NONE REASONABLY FORESEEABLE. NONE UNDER NORMAL USE.

**Products:**

**Incompatible Products:** STRONG ACIDS

**Conditions To Avoid:** NONE KNOWN

#### XI. TOXICOLOGICAL INFORMATION

**Acute Toxicology Data:** NO DATA IS AVAILABLE ON THE PRODUCT ITSELF

**Other:** CARCINOGENIC EFFECTS: NOT LISTED BY IARC, NTP OR OSHA AS A CARCINOGEN.  
 KAOLIN: ACGIH-CARCINOGENS: A4 – NOT CLASSIFIABLE AS A HUMAN CARCINOGEN  
 RARE EARTH OXIDE  
 NIOSH – LD50s AND LC50s: >5 g/kg ORAL LD50 RAT

#### XII. ECOLOGICAL INFORMATION

**Environmental Fate and Distribution:** NO DATA IS AVAILABLE ON THE PRODUCT ITSELF.  
**Ecotoxicity:**

**Persistence and Degradation:** NO INFORMATION AVAILABLE.

### XIII. DISPOSAL CONSIDERATIONS

**Disposal Method:** WASTE MUST BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL ENVIRONMENTAL CONTROL REGULATIONS. WHERE POSSIBLE RECYCLING IS PREFERRED TO DISPOSAL OR INCINERATION. THIS PRODUCT CONTAINS NATURALLY OCCURRING RADIOACTIVE MATERIALS (NORM). CONSULT AND COMPLY WITH CURRENT REGULATIONS.

### XIV. TRANSPORT INFORMATION

**D.O.T. Shipping Name:** NOT REGULATED  
**Other:** TDG (CANADA): NOT REGULATED

### XV. REGULATORY INFORMATION

**TSCA Status:** NOT SUBJECT TO TSCA 12(B) EXPORT NOTIFICATION

**EPA Sara Title III Chemical Listings:** NOT SUBJECT TO THE PROVISIONS OF SARA 313 TITLE III

**Supplemental State Compliance Information:** 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.  
 KAOLIN: PARTK – LISTED  
 RARE EARTH OXIDE: CAL PROP 65 –RADIONUCLIDES  
 RARE EARTH FLUORIDE: CAL PROP65 –RADIONUCLIDES

**Other:** CANADIAN WHMIS  
 WHMIS HAZARD CLASS: D2B TOXIC MATERIALS  
 COMPONENTS: RARE EARTH OXIDE – 1% WHMIS INGREDIENT DISCLOSURE  
 INTERNATIONAL INVENTORIES:  
 TSCA 8(B): LISTED OR EXEMPT  
 CANADIAN DSL: LISTED OR EXEMPT  
 EINECS: LISTED OR EXEMPT  
 PHILLIPINES(PICCS): NOT LISTED  
 JAPAN (ENCS): NOT LISTED  
 KOREA (KECL): LISTED  
 CHINA (IECS): LISTED  
 AUSTRALIA (AICS): NOT LISTED

### XVI. OTHER INFORMATION

#### WARRANTY INFORMATION

THIS INFORMATION IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. NO WARRANTY, EXPRESSED OR IMPLIED, IS HEREBY MADE. THE RECOMMENDED INDUSTRIAL HYGIENE AND SAFE HANDLING PROCEDURES ARE BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTEXT OF THE INTENDED USE AND DETERMINE WHETHER THEY ARE APPROPRIATE.