

# Armour Products

01-029-003

## Material Safety Data Sheet

Emergency Phone Number (24 HRS)  
US Chemtrec (800) 424-9300 or (703) 527-3887  
Canada (613) 996-6666  
MSDS Number CO301/97

### CO301-CO305-CO310-CDS72-POLISHING CERIUM OXIDE

#### I. PRODUCT INFORMATION

Product: Cerium Oxide Polishing Compound

#### II. OSHA HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

CAS NUMBER	% BY WEIGHT	CHEMICAL NAMES	ACGIH TLV	OSHA PEL
68188-83-0	20-75	RARE EARTH OXIDE	10mg/m Total*	15 mg/m Total**
1332-58-7	<50	Kaolin	2 mg/m respirable	15 mg/m Total**
7733-02-0	1.5	Zinc Sulfate	10 mg/m	10 mg/m
14485-31-5	<0.20	Thorium Phosphate	See Below***	See Below***

\*3 mg/m Respirable \*\*5 mg/m Respirable \*\*\*1x10<sup>-12</sup> Microcuries/ml-air for Th232 (NRC)

#### III. HAZARDS IDENTIFICATION

**Emergency Overview:** If caused to dust, this material has silica and inert or nuisance dust limits. Read above ingredient limit levels. Prolonged overexposure to dusts may cause irreversible lung damage. This product is under TCLP limits. This material contains low levels of naturally occurring radioactive material (Norm).

**Potential Health Effects:**

**Eye Contact:** Dust may irritate eyes. Contact with dust or slurry may be abrasive and irritating causing tearing and redness.

**Inhalation:** breathing dust may result in irritation of the nose and throat, coughing, shortness of breath and bronchitis. Existing respirable disorders may be aggravated by exposure.

**Skin Contact:** not absorbed through skin. Dust may be abrasive and mildly irritating. No adverse effects expected.

**Ingestion:** all accidental ingestion of dust or slurry may cause irritation of the digestive tract.

**Chronic Effects/carcinogenicity:** Prolonged inhalation/overexposure to dusts may cause irritation of the digestive tract.

**Teratology (Birth Defect) Information:** n/a

Reproduction Information: n/a



## **VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Engineering Controls:** Handle with adequate ventilation for dust: See OSHA 29 CFR 1910.94 Ventilation and CFR 1910.1000 (A/R Contaminants) Normal clean-up procedures. A source of clean water should be available to flush eyes/skin.

**Respiratory Protection:** Use appropriate respiratory protection for respirable particulates based on consideration of airborne workplace concentrations and duration of exposure. Refer to the most recent standards of ANSI (Z88.2) OSHA (29CFR 1910.134), and NIOSH Respirator logic. In order to limit exposure to norm, production workers should wear appropriate NIOSH approved respirator when dusty.

**Skin Protection:** Protective gloves recommended.

**Eye Protection:** Safety goggles or glasses recommended.

**Exposure Guidelines(s):** See section II

## **IX. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:** Buff color

**Molecular Weight:** n/a

**Specific Gravity:** 5.4

**Boiling Point:** NF

**Odor:** odorless

**Vapor Density:** NF

**Evaporation Rate:** NF

**pH:** 5.0-8.0

**Vapor Pressure:** NF

**Freezing Point:** NF

**Physical State:** Powder

**Viscosity:** n/a

**Melting Point:** NF

**Solubility in Water:** Insoluble

**% Volatile:** 0%

n/a: Not Applicable

NF: Not Found

## **X. STABILITY AND REACTIVITY**

**Chemical Stability:** Stable

**Incompatibility:** None Found

**Hazardous Decomposition Products:** Will not occur

**Hazardous Polymerization:** Will not occur

## **XI. TOXICOLOGICAL INFORMATION**

The ingredients in this product have not been identified as carcinogens by NTP, IARC, or OSHA. A Thorium compound, *not in this product*, has been identified as a human carcinogen by the US National Toxicology program based on reports of liver cancer in person given large intravenous injections for diagnostic purposes. The very small amount of highly insoluble Thorium Phosphate in this product is not thought to present a significant health hazard.

## **XII. ECOLOGICAL INFORMATION**

No eco-toxicity data is available. This product is not expected to present an environmental hazard.

### **XIII. DISPOSAL CONSIDERATIONS**

If uncontaminated, dispose as in inert, non-metallic mineral. If contaminated: dispose in accordance with all applicable local, state, and Federal regulations.

### **XIV. TRANSPORT INFORMATION (not meant to be all inclusive)**

**D.O.T. Shipping Name:** Cerium Oxide Polishing Compound

**D.O.T. Hazard Class:** Not Regulated

**U.N. / N.A. Number:** n/a

**Product RQ (lbs):** n/a

**D.O.T. LABEL:** none needed

**D.O.T. PLACARD:** None needed

**Product Label:** HMIS 1,0,0,B = Chronic

### **XV. REGULATORY INFORMATION (not meant to be all inclusive)**

**OSHA Status:** Material contains low levels of naturally occurring radioactive material (norm) present in the rare earth chronic health hazard under OSHA HAZCOM standard 1910.1200.

**TSCA Status:** listed in TSCA

**CERCLA Reportable:** yes RQ 1000

**SARA Title III:**

**Section 302 Extremely:** NO

**Section 311/312:** YES-Hazard categories for SARA 311/312 Reporting: Chronic Health

**Section 313 Toxic:** NO-This product contains the following chemicals subject to annual release reporting requirements: none

**RCRA Status:** NO

**California Proposition 65:**

This product contains the following substances known to the state of California to cause cancer and/or reproductive harm: Radionuclides (Cancer).

### **XVI. WARRANTY INFORMATION**

THIS INFORMATION RELATES TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. SUCH INFORMATION IS TO THE BEST OF OUR KNOWLEDGE AND BELIEVED ACCURATE AND RELIABLE AS OF THE DATE HEREOF. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO ITS ACCURACY, RELIABILITY OR COMPLETENESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABILITY AND COMPLETENESS OF SUCH INFORMATION FOR HIS OWN PARTICULAR USE. WE DO NOT ACCEPT LIABILITY FOR ANY LOSS OR DAMAGE THAT MAY OCCUR FROM THE USE OF THIS INFORMATION. NOR DO WE OFFER WARRANTY AGAINST PATENT INFRINGEMENT.