

# MATERIAL SAFETY DATA SHEET

**SÜD-CHEMIE**  
CREATING PERFORMANCE TECHNOLOGY



Hi-Tech Ceramics

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Names:** PSZT UDICELL<sup>®</sup> Molten metal filters, RETICEL<sup>®</sup>  
Reticulated Ceramics

**Technical Specification (TS) Nos.:** AL 4

**Chemical Name:** Partially Stabilized Zirconia with Magnesia

**Company Name:** SÜD-CHEMIE  
Hi-Tech Ceramics, Inc.  
P.O.Box 788  
Alfred, New York 14802 USA

**Technical Information:** 1 (607) 587-9146 (USA)  
24 HOUR EMERGENCY ASSISTANCE, (CHEMTREC) 1-800-424-9300  
Outside Continental U.S. Call Collect 1-703-527-3887

## 2. COMPOSITION/INFORMATION on INGREDIENTS

<u>Component</u> <sup>1</sup>	<u>CAS No.</u>	<u>% By Weight</u>	<u>OSHA PEL</u> <sup>2</sup> Respirable	<u>ACGIH TLV</u> <sup>3</sup>
ZrO <sub>2</sub>	1314-23-4	97%	5	
MgO	1309-48-4	3%	5	

<sup>1</sup> Ceramic solids defined as *preparations or mixtures*

<sup>2</sup> Occupational Safety and Health Administration (U.S.A.) - Permissible Exposure Limit, mg/m<sup>3</sup>

<sup>3</sup> American Conference of Governmental Industrial Hygienists - Threshold Limit Value, mg/m<sup>3</sup>

### 3. HAZARD IDENTIFICATION

#### Potential Health Effect if Dust Is Generated by grinding or cutting:

**Eye:** Dust or particles may cause irritation.  
**Skin:** N.A.  
**Ingestion:** N.A .  
**Inhalation:** Acute exposure to nuisance dust may result in upper respiratory irritation.  
**Chronic Effects:** NA.

### 4. FIRST AID MEASURES

**Inhalation:** Remove the person to dust free area.  
**Eye Contact:** Flush eyes for at least 15 minutes with clean water. Seek medical attention should irritation persist.  
**Skin Contact:** N.A.  
**Ingestion:** N.A.

### 5. FIRE FIGHTING MEASURES

**Flammable Properties:** Non-flammable  
**Flash Point:** None  
**Upper and Lower Flammability Limits:** None  
**Autoignition Temperature:** None  
**Special Fire Fighting Procedures:** None

### 6. ACCIDENTAL RELEASE

**Personal Precautions:** If dust is generated during work activity due to grinding or cutting, approved respirator and safety glasses should be worn.

**Cleanup Measures:** Dry sweeping of materials should be avoided to minimize dust emissions in the air. Settled dust and particles should be cleaned up using wet sweeping techniques or with a HEPA filtered vacuum.

## 7. HANDLING AND STORAGE

**Handling:** Ceramic materials are brittle; care must be taken to prevent cracking or chipping. unsafe conditions may occur in contact with molten metal.

**Storage:** Keep product dry. If wet, potentially violent cracking may occur in contact with molten metal.

## 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

**Engineering Controls:** Machining or grinding can result in dust. Use local exhaust ventilation to control dust below exposure limits.

**Respiratory Protection:** NA.

**Skin and Hand Protection:** Abrasive resistant gloves.

**Eye and Face Protection:** Safety glasses with full side shields or goggles.

## 9. PHYSICAL and CHEMICAL PROPERTIES

**Appearance:** Beige-tan Reticulated Ceramics

**pH:** N.A.

**Melting Point:** >1700° C

**Explosive Properties:** N.A.

**Odor:** None

**Bulk Density:** 0.93g/cm<sup>3</sup>

**Flash Point:** N.A

**Solubility:** None in water

## 10. STABILITY and REACTIVITY

**Chemical Stability:** Stable

**Incompatibility:** None

**Hazardous Decomposition:** NA

**Polymerization:** Will Not Occur

**Conditions to Avoid:** None

## 11. TOXICOLOGICAL INFORMATION

None known

**Acute toxicity:** N.A.

**Local effects:** N.A.

**12. ECOLOGICAL INFORMATION**

None found.

**13. DISPOSAL CONSIDERATION**

Can be disposed of as non-hazardous waste in accordance with local, state and federal regulations.

**14. TRANSPORTATION INFORMATION**

U.S. DOT - Not regulated as a hazardous material.

**15. REGULATORY INFORMATION**

**U.S.A. Regulations (TSCA):** The chemical components of this product are registered under the Toxic Substances Control Act.

**Canadian Regulations (DSL):** The chemical components of this product are listed on the Domestic Substance List.

**European Community:** The chemical components of this product are listed on the EINECS inventory – Zirconia ( 215-227-2 ) MgO ( 215-171-9 )

**16. OTHER INFORMATION**

NONE

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**The information contained in this Material Safety Data Sheet is believed to be accurate. However, Hi-Tech Ceramics, Inc. makes no warranty with respect to the accuracy of the information or the suitability of the recommendations and assumes no liability to any user based upon use of product or reliance upon the information contained in this Material Safety Data Sheet.**