



ZI_MSDS# 2008

1 Product and Company Identification

Product Details

Trade Name: Zircon Composition 2004 [$<0.05\%$ U + Th]

Manufacturer/Supplier:

Zircoa, Inc.
31501 Solon Road
Solon, OH 44139

General Phone: (440) 248-0500

Chemical Family or Product Type: Inorganic Metal Oxide Refractory

Emergency Information: Chandra Kodali 24-hour emergency phone number: (440) 248-0500

2 Hazards Identification

EYES

May cause irritation or injury.

SKIN CONTACT

May cause irritation.

INGESTION

Not expected to be an important route of entry into the body. Ingestion of large quantities of the product may cause gastric discomfort or distress.

INHALATION

May cause irritation of the mucus membranes and respiratory tract.

Chronic:

Prolonged exposure may cause dermatitis and a benign pneumoconiosis. Pre-existing lung and skin conditions may possibly be aggravated by exposure to the components of the product.

ZI_MSDS# 2008

3 Composition/Data on Components

Chemical Characterization

Description: White, Light Yellow, or Tan Shapes, Granules, or Powder

CAS#	Component	OSHA PEL	ACGIH TLV	Percent
14940-68-2	Zircon (Zirconium Silicate)	5 mg/m ³ (TWA) (Zirconium compounds)	5 mg/m ³ (TWA) 10 mg/m ³ (STEL)	99

This product contains small amounts, <0.4% each, of calcium, magnesium, aluminum, iron and titanium dioxides.

(TWA) = 8-hr Time Weighted Average

(STEL) = Short Term Exposure Limit

ACGIH TLVs and OSHA PELs and are based on 2010 values.

4 First Aid Measures

After Inhalation: Remove to fresh air. If breathing is difficult, oxygen may be administered. If breathing has stopped, artificial respiration should be started immediately. Seek medical attention.

After Skin Contact: Wash thoroughly with mild soap and water. Remove contaminated clothing and shoes. Seek medical attention if irritation develops.

After Eye Contact: Flush with tepid water for at least 20 minutes holding the eyelids open. Seek medical attention if irritation develops.

After Swallowing: Do not induce vomiting unless directed to do so by medical personnel. If large quantities of this material are swallowed, call a physician immediately.

ZI_MSDS# 2008

5 Fire Fighting Measures

Product will not burn.

Suitable Extinguishing Agents: **Product will not burn.** Cool material in or near fires with a water spray or fog if compatible with fire fighting techniques for the other materials involved in the fire.

Protective Equipment: A self-contained breathing apparatus operating in the positive pressure mode and full fire fighting gear should be worn for combating fires.

6 Accidental Release Measures

Response to Small Spills: Dusts generated during processing or handling should be promptly cleaned up. Use wet sweeping or dust suppressant when sweeping is required.

Waste Disposal: Place in an appropriate disposal facility in compliance with all local, state, and federal regulations.

7 Handling and Storage

Handling:

Information for Safe Handling: Use proper work practices and engineering controls to prevent the generation of dusts. Dusts generated during processing or handling should be promptly cleaned up. Wash hands and contaminated skin after handling. Follow all warnings and precautions even after container is emptied.

Information About Protection Against Explosions and Fires: No special measures required.

Storage:

Requirements to be Met by Storerooms and Containers: Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store with or near strong acids or reducing agents.

Information About Storage in One Common Storage Facility: Not required.

ZI_MSDS# 2008

8 Exposure Controls and Personal Protection

RESPIRATORY PROTECTION

If exposure is likely to exceed exposure limits an R,N,P-95 rating filtering facepiece respirator can be used depending upon all working conditions in accordance with local, state, and federal regulations. Comply with the OSHA Respiratory Protection Standard (29 CFR 1910.134, or others, as applicable).

VENTILATION

General (mechanical) room ventilation is generally satisfactory. Special, local ventilation may be needed at points where dust levels can be expected to exceed exposure limits.

PROTECTIVE GLOVES

Polymeric gloves to prevent irritation. Appropriate body covering to protect work clothes if working in dusty areas.

EYE PROTECTION

Safety glasses with side shields should be worn for protection against particulate matter.

ADDITIONAL PROTECTIVE CLOTHING OR EQUIPMENT

Boots, aprons, or chemical suits should be used when necessary to prevent skin contact. Eye wash fountains and safety showers should be available for emergency use.

Section 8 Notes: All personal protective equipment should be thoroughly cleaned and decontaminated prior to re-use.

ZI_MSDS# 2008

9 Physical and Chemical Properties

General Information:

Form: Granules or Powder

Color: White, Light Yellow, or Tan

Odor: Odorless

Specific Gravity (water = 1): 4.4

pH: NA

Melting Point / Melting Range (°F): >3,200

Boiling Point / Boiling Range (F): NA

Flash Point: NA

LEL/UEL: NA / NA

Auto Igniting: NA

Danger of Explosion: Product does not present an explosion hazard.

Solubility in / Miscibility with Water: <1%

Vapor Density (air = 1): NA

Vapor Pressure: NA

% Volatile by Volume: Not Volatile

Octanol / Water Partition Coefficient: ND

Evaporation Rate BuOAc = 1: NA

10 Stability and Reactivity

Stability and Polymerization: Product is stable. Hazardous polymerization will not occur.

Hazardous Decomposition Products: None known. Product is stable to at least 3,200 F.

Incompatibility/Conditions to be Avoided: Do not store near strong acids or reducing agents.

Special Sensitivity: None that are known.

ZI_MSDS# 2008

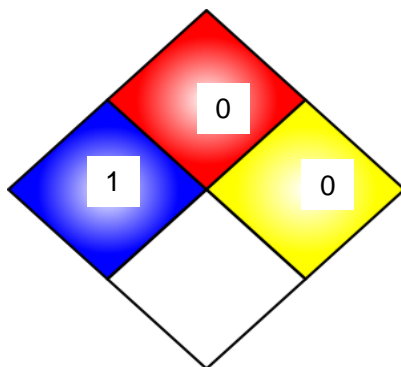
11 Toxicological Information

HMIS[®] III Classification

HEALTH	*1
FLAMMABILITY	0
PHYSICAL	0
HAZARD	
PERSONAL PROTECTION	E

* Indicates Chronic Health Hazard

NFPA Rating



Health = 1
 Flammability = 0
 Instability = 0
 Special = None

Components listed as carcinogenic or potential carcinogen:

NTP: No
IARC Monographs: No
OSHA: Not Regulated as a Carcinogen

ZI_MSDS# 2008

12 Ecological Information

Environmental Fate: This material is not expected to biodegrade.

Environmental Toxicity: NA

13 Disposal Considerations

Disposal: Dispose of in compliance with all local, state, and federal regulations.

14 Transport Information

Proper Shipping Name: NA (No US Department of Transportation Hazardous Material Ingredients)

Hazard Class or Division: NA

Identification Number: NA

Packing Group: NA

ZI_MSDS# 2008

15 Regulations

SARA 313 TOXIC CHEMICALS:

Not subject to reporting requirements

SARA 302 EXTREMELY HAZARDOUS SUBSTANCES:

EHS RQ: NA

TSCA (Toxic Substances Control Act):

Zirconium Silicate is listed on the TSCA Inventory.

WHMIS Classification:

D-2A and D-2B

Carcinogenicity Categories:

EPA (Environmental Protection Agency):

Not Listed

IARC:

Not Listed

MAK (German Maximum Workspace Concentration):

Not Listed

NIOSH-Ca (National Institute for Occupational Safety and Health):

Not Listed

NTP:

Not Listed

ACGIH:

TLV-A4

Classification According to European Union Guidelines:

Xn (Harmful)

Safety Phrases:

S24/S25- Avoid contact with skin and eyes.

S28A- After contact with skin, wash immediately with plenty of water.

S36/37/39- Wear suitable protective clothing, gloves, and eye/face protection.

The following ingredients are known in the state of California to be a cancer risk (Proposition 65):

Radionuclides

ZI_MSDS# 2008

16 Other Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Contact: Chandra Kodali (440) 248-0500

Creation Date: 08/19/2011