



MATERIAL SAFETY DATA SHEET

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Revised 3/31/11
Replaces 8/11/10
Printed 9/08/11

ZIRCOPAX PLUS

MSDS ID: 51453

Distributed by:
Laguna Clay Company
14400 Lomas Ave
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www.lagunaclay.com

Section I (General Information)

MANUFACTURER'S NAME:

Endeka Ceramics Inc.

EMERGENCY TELEPHONE NUMBER:

Regulatory Information: (904) 751-2828 (Weekdays 8:00am-5:00pm EST)

Emergency Telephone: (904) 607-3011 (24 hrs.)

ADDRESS (NUMBER, STREET, CITY, STATE, ZIP):

11400 New Berlin Road, Jacksonville, FL 32226 (904) 751-2828

CHEMICAL NAME AND SYNONYMS:

Zircopax Plus

TRADE NAME AND SYNONYMS:

Zircon, Zirconium silicate

CHEMICAL FAMILY:

Rare Earth Oxide

FORMULA:

Proprietary

DATE OF PREPARATION:

01/01/2011

PREPARED BY:

Environmental, Health and Safety Department

DISCLAIMER:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgements of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Section II - Hazardous Ingredients

Table with 5 columns: NAME, WT%, CAS#, ACGIH TLV, OSHA PEL. Rows include Zirconium Silicate and Silica (Free).

* Exposure limits for Zirconium Silicate have not been established by the ACGIH or OSHA. The exposure limits for Crystalline silica is recommended.

- (a) Respirable Fraction
(b) Total Dust

Section III - Physical Data

MELTING POINT:

2,100 C(3,812 F) to 2,300 C(4,172 F)

VAPOR PRESSURE(mm Hg):

Not applicable

VAPOR DENSITY (AIR = 1):

Not applicable

SPECIFIC GRAVITY (H2O=1)

4.7 g/cm3



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Section III - Physical Data (Cont.)

PERCENT VOLATILE BY VOLUME (%):

Not applicable

EVAPORATION RATE (BuAc = 1):

Not applicable

SOLUBILITY IN WATER:

Insoluble

APPEARANCE AND ODOR:

Free-flowing finely milled white sand particles, no odor

Section IV - Fire and Explosion Hazard Data

FLASH POINT (METHOD USED):

Not applicable

EXTINGUISHING MEDIA:

This Material will not burn, however water may be used to cool down metal containers.

SPECIAL FIRE FIGHTING PROCEDURES:

Fire fighters should wear self-contained breathing apparatus. Use water spray to cool metal containers. Use care when approaching advanced or massive fires. Run off from fire control may cause environmental pollution

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Toxic fumes may be evolved during a fire.

Section V - Health Hazard Data

PRIMARY ROUTES OF EXPOSURE:

Skin: No Eyes: no Inhalation: Yes Ingestion: Yes

TARGET ORGAN(S) EFFECTS:

Zirconium compounds-Skin, respiratory system

Silica-Respiratory system

CARCINOGENICITY STATUS:

The following compound(s) are listed as carcinogens by NTP, IARC, OSHA or all:

Crystalline Silica (IARC)

POTENTIAL HEALTH EFFECTS:

WARNING! DO NOT INHALE DUST!

This product contains small amounts of Crystalline Silica. Crystalline Silica is known to cause cancer and is associated with the chronic lung disease Silicosis. Symptoms of silicosis include chronic cough, dyspnea, wheezing and respiratory tract infections, such as tuberculosis. Individuals with pre-existing respiratory conditions may have increased sensitivity to crystalline silica exposure.

This product contains trace amounts of naturally occurring Uranium, Thorium (90-110pCi/g) and Radium(109-114 pCi/g). This concentration is less than 0.042% w/w. Zircon is exempt from NRC regulations for source material under 10 CFR 40, since it falls under the definition of unprocessed material containing less than 0.05% Uranium, Thorium or Radium.

EMERGENCY AND FIRST AID PROCEDURES:



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Section V - Health Hazard Data (Cont.)

Eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes
Remove contact lenses, if present, after the first 5 minutes, then
continue rinsing eyes
Call a Poison Control Center or Doctor for treatment advice

Skin: Take off contaminated clothing
Rinse skin immediately with plenty of water for 15-20 minutes
Call a Poison Control Center or Doctor for treatment advice

Inhalation: Move person to fresh air.
If person is not breathing, call 911 or ambulance, then give
artificial respiration, preferably mouth to mouth, if possible
Call Poison Control Center or Doctor for further treatment advice

Ingestion: Call Poison Control Center or Doctor immediately for treatment
advice.
Have person sip a glass of water if able to swallow.
Do not induce vomiting unless told to do so by the Poison Control
Center or Doctor
Do not give anything by mouth to an unconscious person.

Section VI - Reactivity Data

STABILITY (choose one): () UNSTABLE
(x) STABLE

INCOMPATIBILITY (MATERIALS TO AVOID):

Acidic conditions and acids

HAZARDOUS DECOMPOSITION PRODUCTS:

Not applicable

HAZARDOUS POLYMERIZATION (choose one): () MAY OCCUR
(x) WILL NOT OCCUR

Section VII - Spill or Leak Procedures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Evacuate area. Use appropriate personal protective equipment during clean
up. Use a wet mop or vacuum cleaner equipped with a HEPA filter. Prevent
entry into waterways. If reportable quantity is exceeded, contact the
National Response Center.

WASTE DISPOSAL METHOD:

Follow all Federal, State and Local regulations for removal and disposal.

Section VIII - Special Protection Information

RESPIRATORY PROTECTION (SPECIFY TYPE):

A NIOSH/MSHA approved respirator equipped with a High Efficiency Particulate
(HEPA) filter, approved for radionuclides, is recommended when the exposure
limits in section II are exceeded.

VENTILATION:

LOCAL EXHAUST: At source of generation to remove dust from breathing



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Section VIII - Special Protection Information (Cont.)

zone.
MECHANICAL (GENERAL): Acceptable for small quantities

PROTECTIVE GLOVES:

Impervious gloves

EYE PROTECTION:

Safety glasses or goggles

OTHER PROTECTIVE EQUIPMENT:

Safety shower and eye bath. Disposable coveralls to prevent contaminated clothing.

Section IX - Special Precautions

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

Store in sealed, closed containers. Prevent moisture inside containers.

OTHER PRECAUTIONS:

Do not eat, drink or smoke while using this material. Use in accordance with good industrial hygiene standards.

Section X - Regulatory Information

REGULATORY INFORMATION:

TSCA Status: Components on Inventory

SARA Title III Section 313 Reportable Chemicals:
Not Applicable

HMIS Rating: Health 1
Fire 0
Reactivity 0

Section XI - Ingredients

RIGHT-TO-KNOW INFORMATION:

Component	Cas#
Zirconium Silicate	14940-68-2
kyanite	1302-76-7
Staurolite	12182-56-8
Quartz	14808-60-7

California Proposition 65:

Silica, crystalline (particles of respirable size) are known to the State of California to cause cancer.

Radionuclides are known to the State of California to cause cancer.

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Section XII - References

REFERENCES:

Barclays California Code of Regulations.
NIOSH Pocket Guide to Chemical Hazards.
29 CFR 1910.1000, Z-tables
ACGIH TLV for Chemical Substances and Physical Agents.



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