

MATERIAL SAFETY DATA SHEET

EPK KAOLIN

EFFECTIVE DATE: March 1, 2006

PREVIOUS DATE: February 3, 2003

REGULATORY COMPLIANCE:

- British Legislation, CHIP
- EC-directive 91/155/EC
- US OSHA Hazard Communication Standard CFR 1910.1200
- Canadian WHMIS
- EC-directive 93/112/EC

1. IDENTIFICATION OF THE SUBSTANCE/PREP. AND THE COMPANY

PRODUCT NAME: EPK KAOLIN

MANUFACTURER'S NAME: The Feldspar Corporation/Zemex Industrial Minerals Inc.

ADDRESS: 1040 Crown Point Parkway, Suite 270, Atlanta GA. 30338

PHONE NO.: (770) 392-8660 8am-5pm EST Fax: (770) 392-8670

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME: KAOLINITE

PRODUCT NAME: EPK Kaolin

CHEMICAL FAMILY: Hydrous Aluminum Silicate

FORMULA: $H_4Al_2Si_2O_9$; SiO_2

WEIGHT: Kaolinite 96-99.9 %

CAS No: 1332-58-7

Crystalline Silica (Quartz) 0.1-4%

CAS No: 14808-60-7

3. HAZARDS IDENTIFICATION

EPK Kaolin is a naturally occurring mineral, which may contain amounts of crystalline silica typically 0.1-4%

- **CARCINOGENICITY:** This product contains crystalline silica. Repeated, prolonged inhalation of dust may cause delayed lung injury which may result in silicosis or pneumoconiosis. The International Agency For Research On Cancer in its publication, "IARC Monographs On the Evaluation Of The Carcinogenic Risk To Humans – Silica, Some Silicates, Coal Dust and Para-aramid Fibrils" - Volume 68, 1997, has concluded that there is sufficient evidence of the carcinogenicity of crystalline silica in humans, and has, therefore, classified crystalline silica in, Group 1, Carcinogenic to Humans. The National Toxicology Program's ("NTP's") Ninth Annual Report on Carcinogens 2000, lists crystalline silica (respirable) as a substance which is known to be a human carcinogen. In humans, a number of studies have found an association between lung cancer and exposure to dust containing respirable crystalline silica. In many of these studies, though not all, lung cancer risks were elevated and could not be explained by confounding factors such as cigarette smoking or arsenic or random inhalation. While the IARC working group concluded there was sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica in the form of quartz or crystobalite, it noted that carcinogenicity in humans was not detected in all circumstances studied.
- **Note:** The state of California requires the following statement:
"Airborne particles of respirable size of crystalline silica are known to the State of California to cause cancer"

4. FIRST AID MEASURES

SKIN CONTACT: No special procedures are required. Some eye, mucous membrane and skin sensitivity may occur with allergic individuals. First aid consists of washing away dust.

INHALATION: In case of discomfort by dust, move to a ventilated area and consult a physician and or obtain competent medical assistance as necessary

EYE CONTACT: Wash eyes with large amount of water or saline solution. If irritation or redness develops, get medical attention.

INGESTION: Give large quantities of water to induce vomiting, keep head lower than hips to prevent aspiration. Get medical attention.

5. FIRE-FIGHTING MEASURES

Kaolin is not flammable.

6. ACCIDENTAL RELEASE MEASURES

Kaolin waste is not reactive, flammable or biodegradable. Use conventional means; e.g. sweeping, vacuum, etc. Use caution on wet floor, as it may be slippery.

7. HANDLING AND STORAGE

Avoid dust formation. Keep container tightly closed.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

OSHA PEL

Crystalline Quartz

RESPIRABLE 0.1 mg/m³ (TWA-TLV)

ACGIH TLV

Crystalline Quartz

RESP. 0.025 mg/m³ (TWA-TLV)

NIOSH TWA

Crystalline Quartz

RESP. 0.05 mg/ m³ (TWA-TLV)

RESPIRATORY PROTECTION: NIOSH approved dust respirator should be used when level exceeds TLV.

VENTILATION: Normal air circulation, use adequate ventilation for low TLV

LOCAL EXHAUST: Collect excessive dust at point of generation. Refer to OSHA 1910-24, ASTM, and/or ANSI Standard. Do not exceed OSH PEL or ACGIH TLV.

PROTECTIVE GLOVES & EYE PROTECTION: Impermeable gloves and Eye protective glasses are recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

MELTING POINT: 1740-1785 °C

SPECIFIC GRAVITY (WATER=1): 2.65

SOLUBILITY IN WATER: Negligible

% VOLATILE BY VOL: Non-Volatile

BOILING POINT: N/A

APPEARANCE: White to light gray lumps; buff-colored powder

ODOR: Earthy smell when wet

VAPOR PRESSURE: N/A

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable

CONDITIONS TO AVOID: None

MATERIALS TO AVOID: None Expected

HAZARDOUS DECOMPOSITION PRODUCTS: None

11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS (ACUTE & CHRONIC): May cause eye and skin irritation. Ingestion may cause gastrointestinal irritation, nausea and diarrhea.

Long term exposure to high amount of Kaolin without the approved dust mask may cause cancer, based on animal data.

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects: No known effect on environment or expected under normal use.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Use normal solid waste, disposal methods to comply with Federal and local laws. Kaolin is not hazardous waste under RCRA (40CFR Part 261)

14. TRANSPORT INFORMATION

Not classified as dangerous material by DOT. No special precautions are required.

15. REGULATORY INFORMATION

Canadian WHMIS: Hazardous product, D2A

CANADIAN DOMESTIC SUBSTANCES LIST: As a naturally occurring substance, kaolin is considered to be on the Canadian DSL.

PNCA/CPMA HMIS RATING: Health (2) Flammability (0) Reactivity (0) Personal Protection (E)

SARA: 311 and 312 Hazard Categories

U.S. CALIFORNIA PROPOSITION 65: This product contains materials regulated under **California's Safe Drinking Water and Toxic Enforcement Act of 1986.**

U.S. SARA TITLE III: This product is not subject to SARA Title III (40 CFR Part 372)

TSCA CHEMICAL SUBSTANCES INVENTORY: Kaolin is listed.

16. OTHER INFORMATION

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