MATERIAL SAFETY DATA SHEET

(Revision: 07/01/2014)

1. Identification of the Substance/Preparation and of the Company/Undertaking.

- Product Type: Phosphate Casting Investment
- Trade Names:

AccuVest	**Cera-Fina**	**Ceramigold**	**FastFire 15**
Formula 1	**Hi-Temp**	**PC 15**	**PowerCast**
Polyvest	**Ti21**	**V.H.T. Industrial**	**X-20**

- Company: ***Whip Mix Corporation***
  361 Farmington Ave.
  Louisville, Kentucky, USA 40209
  Emergency Telephone Number: (502)-637-1451
  Fax Number: (502) 634-4512

Transportation Emergencies: ***CHEMTREC 1(800) 424-9300 (U.S. and Canada)***
International Calls: 1- 703-527-3887 (Collect calls accepted)

2. Hazard Identification.

- **This product contains Crystalline Silica (CS), which is considered a hazard by inhalation. IARC has classified inhalation of CS as carcinogenic for humans (Group 1). CS is listed by NTP as a known human carcinogen. Inhalation of CS is also a known cause of Silicosis, a non-cancerous lung disease.**
- Pre-existing upper respiratory and lung disease such as, but not limited to Bronchitis, Emphysema and Asthma. Lungs and eyes are target organs.
- Acute health effects involve transitory upper respiratory or eye irritation.
- Chronic health effects from inhalation of crystalline silica has been classified by IARC as carcinogenic for humans (group 1). Inhalation of crystalline silica is also a known cause of Silicosis, a non cancerous lung disease caused by excessive exposure to crystalline silica
  Inhalation of excessive dust over a prolonged period can result in lung damage, silicosis.

3. Composition/Information on Ingredients.

Substance	***CAS No.***	***EINECS***	***Concentration, %***	**R**	**S**
Silica, Crystalline, Quartz	14808-60-7	238-878-4	5-70	N/A	N/A
Silica, Crystalline, Cristobalite	14464-46-1	238-455-4	0-60	N/A	N/A
Nuisance Dusts (Phosphates)	Not Assigned	Not Assigned	10-30	N/A	N/A
Metallic Oxides	Not Assigned	Not Assigned	5-15	N/A	N/A

4. First-Aid Measures.

- For inhalation: Remove exposed person to fresh air, drink water to clear throat and blow nose to evacuate dust.
- For eyes: Flush with large quantities of water. If irritation persists consult a physician.

5. Fire-Fighting Measures.

- Nonflammable. Use whatever measure of extinction is appropriate for surrounding fire.
- Water may cause product to solidify.

6. Accidental Release Measures.

- Vacuum spilled material. Avoid creating dust. Wipe surfaces with wet cloth.
- Avoid washing down drains as material can plug drains.

7. Handling and Storage.

- Minimize dusts generation and accumulation. Avoid breathing dust. Avoid contact with eyes. Seal broken bags immediately. Continue to follow all MSDS Label warnings when handling empty containers.
  Insure proper respiratory protection

8. Exposure Controls/Personal Protection.

- Exposure Limits (as respirable dust). All values as mg/m^3

	OSHA-PEL	***ACGIH-TLV, 2014***
• Nuisance Dusts (Phosphate)	5	Withdrawn
• Metal Oxides	5	Withdrawn
• Silica – Quartz	0.1	0.025
• Silica – Cristobalite	0.05	0.025

- Personal protective equipment: None required during normal laboratory use.
- Engineering controls: Use local ventilation to keep employee exposure to respirable dust below 0.025 mg/m^3.
- Respirator: Use respirator approved by NIOSH/MSHA – 1/2 face with dust/mist cartridges for exposures up to 10 times exposure limit.

9. Physical and Chemical Properties.

- Solid, odorless powder, with variety of colors

Vapor pressure (mmHg)	Not Applicable
Vapor density (air=1)	Not Applicable
Evaporation rate	Not Applicable
Boiling point ºC	Not Applicable
Freezing point ºC	Not Applicable
pH	Not Applicable
Specific gravity	Not Applicable
Flammability	Not Applicable
Flash point ºC	Not Applicable

- No dangerous reactions are known to occur with correct handling and storage.

10. Stability and Reactivity.

- Basically stable, may solidify if contacted by water.
- Incompatible with hydrofluoric acid.
- No hazardous decomposition products.

11. Toxicological Information.

- Route of entry: Inhalation.
- Effects of acute exposure: None known.
- Inhalation of excessive dust over a prolonged period can result in lung damage, Silicosis.
- Carcinogenicity: The International Agency for Research on cancer (IARC) reports inhaled crystalline silica is a Group 1 carcinogen to humans. NTP has listed crystalline silica as carcinogen.
- Synergistic products: Mycobacterium Tuberculosis.

12. Ecological Data.

- No ecotoxicological studies are available. Generally considered chemically inert in the environment. Not dangerous to water.

13. Disposal Considerations.

- Waste is not hazardous as defined by RCRA (40 CFR 261). Other state and local regulation may vary; consult local agencies as needed. Used material, which has become contaminated, may have significantly different characteristics based on contaminates and should be evaluated accordingly.

14. Transport Information.

- No special transport requirements, non dangerous goods.

15. Regulatory Information.

- OSHA Hazard Communications Standard, 29 CFR 1910.1200: Contained material considered hazardous.
- RCRA: This material is not defined as hazardous water, per 40 CFR 261.
- TSCA: These products contain materials listed in the TSCA inventory and is not otherwise regulated by TSCA Sec. 4, 5, 6, 7 or 12.
- CERCLA: Materials not reportable under CERCLA. Local requirements may vary.
- SARA: 311/312 hazard categories - immediate and delayed health, 313 reportable ingredients - none
- California Proposition 65: Investments contain Crystalline Silica known to the state of California to cause cancer.

16. Other Information.

- HMIS Rating: Health 3 Flammability 0 Reactivity 0 Other 0
  Hazard: 4-Severe; 3-Serious; 2-Moderate; 1-Slight; 0-Minimum

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Date: 7/1/2014	Date: