Material Safety Data Sheet
Acc. To ISO/DIS 11014

Printing Date: 25-Jan-08 Revision Date: 08-Mar-06

1. IDENTIFICATION OF SUBSTANCE

- **Product description:** Powder Coating
- **Trade Name:** Polyester/TGIC

Manufactured For:
The Easthill Group Dba/The Eastwood Company
263 Shoemaker Road
Pottstown,PA 19464
USA & Canada: 800-345-1178
Outside USA: 610-323-2200
Emergency contact: Chem-Trec: 800-424-9300

2. HAZARDOUS INGREDIENTS

- **Chemical characterization**
- **Description:**

Product is a mixture of hazardous and non-hazardous ingredients compounded in a polymer

Hazardous components:	CAS#	PEL-OSHA	TLV-ACGIH	Conc. [%]
Barium Sulfate	7727-43-7	15/5 mg/m³	10/5 mg/m³	0.1-1
Calcium Carbonate	1317-65-3	15/5 mg/m³	10 mg/m³	10 - 30
Crystalline Silica as Quartz	14808-60-7	0.1 mg/m³	0.05 mg/m³	0.1-1
Proprietary Ingredient 7	NA	N/E	N/E	0.1-1
T-Glycid-T-Cyanurate (TGIC)	2451-62-9	N/E	0.05 mg/m³	1 - 5
Titanium dioxide	13463-67-7	15 mg/m³	10 mg/m³	1 - 5

3. POTENTIAL HEALTH EFFECTS

- **Information pertaining to particular danger for man and environment**
  Harmful by inhalation and if swallowed.
- **Classification system**
  Classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data

NFPA ratings (scale 0-4)

Health 1
Fire 1
Reactivity 0

- **Effects of overexposure to:**

Barium Sulfate	TLV and PEL are for Total dust/Respirable fraction. May cause mechanical irritation of eyes or in great concentration overloading of the respiratory system. Lungs may be affected by repeated or prolonged exposure to dust particles , resulting in baritosis (a form of benign pneumoconiosis). Reacts violently with aluminium powder.
Calcium Carbonate	The TLV is for Total dust/Respirable fraction. May cause respiratory tract irritation. This is expected to be a low hazard for usual industrial handling. May cause eye and skin irritation. Ignites on contact with fluoride (F2). Incompatible with acids, alum, ammonium salts,magnesium and mercury/hydrogen mixtures.
Crystalline Silica as Quartz	Exposure limits are for respirable fractions.Long term overexposure to crystalline silica causes silicosis, a form of pulmonary fibrosis,scleroderma, and nephrotoxicity. Continued overexposure to silica can lead to cardiopulmonary impairment. Crystalline silica has been reviewd by IARC. IARC found sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica in the form of quartz or cristobalite from occupational sources. It also has noted that carcinogenicity was not detected in all industrial circumstance studies, and may be dependent on external factors affecting its biological activity or distribution of its polymorphos.

Proprietary Ingredient 7	Thermal decomposition of this ingredient may produce oxides of carbon, nitrogen, and aromatic amines. Avoid processing temperatures above 392°F (200°C). Thermal decomposition can form traces of aromatic amines. 3,3' Dichloro-benzidine may be formed at temperatures above 392°F (200°C). 3,3' Dichloro-benzidine is classified as a suspect carcinogen by NTP and IARC, and is regulated by OSHA as a suspect carcinogen.
T-Glycid-T-Cyanurate (TGIC)	Warning! Severe eye irritant. Toxic by ingestion or if inhaled. May cause dermatitis and sensitization. Can cause effects on the male reproduction system.
Titanium dioxide	Skin irritant. Inhalation effects similar to effects of inert nuisance dust. Dust can cause lung irritation. An experimental carcinogen, neoplastigen and tumorigen.

4. FIRST AID MEASURES

- **After inhalation**
  Supply fresh air and to be sure call for a doctor
- **After skin contact**
  Generally the product does not irritate the skin
- **After eye contact**
  Rinse opened eye for several minutes under running water
- **After swallowing**
  Rinse mouth out and then drink plenty of water. If symptoms persist consult doctor

5. FIRE FIGHTING MEASURES

- **Suitable extinguishing agents**
  Use CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment**
  Wear self-contained respiratory device

6. ACCIDENTAL RELEASE MEASURES

- **Person-related safety precautions**
  Ensure adequate ventilation
- **Measures for environmental protection**
  Do not allow to enter sewer/surface or ground water
- **Measures for cleaning/collecting**
  Pick up mechanically. Dispose contaminated material as waste according to item 13

7. HANDLING AND STORAGE

•• **Handling**

- **Information for safe handling**
  Prevent formation of dust Ensure good ventilation/exhaustion at the workplace
- **Information about protection against explosions and fires –**
  Dust can combine with air to form an explosive mixture

•• **Storage**

- **Requirements to be met by storerooms and receptacles**
  Store in cool, dry place, in tightly closed container. Storage temperature not to exceed 25°C/77°F to ensure product quality. Shelf life of the product at that temperature up to 2 years, after that the performance of the product will deteriorate. Protect from heat and direct sunlight. Protect from humidity and water
- **Information about storage in one common storage facility**
  Not required

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

- **Additional information about design of technical systems**
  No further data; see item 7

- **Components with limited values that require monitoring at the workplace**
  Barium Sulfate
  Calcium Carbonate
  Crystalline Silica as Quartz
  T-Glycid-T-Cyanurate (TGIC)
  Titanium dioxide
- **Personal protective equipment**
  Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. The usual precautionary measures for handling chemicals should be followed

•• **General protective and hygienic measures**

- **Inhalation:** It is recommended to use MSHA approved respirator when handling powders. Powders are considered nuisance dust.
- **Skin contact:** Avoid skin contact, use long sleeved shirts and impermeable gloves at a minimum when handling powders. TYVEK full body suits or equivalent are recommended for heavy exposure. Be sure to launder contaminated clothing before reuse. Wash skin with mild soap and water if contact occurs. If symptoms develop, consult with a physician.
- **Eye protection:** Require the use of safety goggles with side shields. Powder particles can be abrasive on the cornea. In case of eye contact flush with plenty of fresh water. If irritation develops consult with a physician

9. PHYSICAL AND CHEMICAL PROPERTIES

- **Form** Solid, finely divided powder
- **Colour** According to product specifications
- **Odour** Nearly odourless

•• **Change in condition**

- **Melting point/range** 70-80°C/158-176°F
- **Boiling point/range** Not applicable
- **Flash point** Not applicable
- **Auto igniting** Product is not self-igniting
- **Danger of explosion** Product does not normally present an explosive hazard. However, dust can combine with air to form an explosive mixture if it comes in contact with a source of ignition.
  LOWER EXPLOSION LIMIT: 15 g/m3
  UPPER EXPLOSION LIMIT: 50 g/m3
- **Density:** 1.2 g/cm3 – 1.7 g/cm3
- **Solubility in/miscibility with water**
  Not miscible or difficult to mix
- **Solvent content** Organic solvents – 0.0%.
  Solids content – 100%

10. STABILITY AND REACTIVITY

- **Product Stability:**
  No decomposition if used according to specifications
- **Thermal decomposition/conditions to be avoided:**
  Decomposition at high temperatures may yield Carbon Dioxide, Carbon Monoxide, Nitrous Oxides and other hazardous gases.
- **Dangerous Reactions:**
- **Dangerous products of decompoition:**

11. TOXICOLOGICAL INFORMATION

- **Primary irritant effect**
  On the skin – Powder can be irritating through mechanical action, also has a drying effect.
  On the eye – Powder can be irritating through mechanical action, can cause abrasion on the cornea.

- **Sensitization**

  Sensitization possible through skin contact

- **Additional toxicological information**

  The product shows the following danger according to internally approved calculation methods for preparations:
  Harmful

12. ECOLOGICAL INFORMATION

- **General notes**

  Water hazard class 1 (self-assessment): slightly hazardous for water

13. DISPOSAL CONSIDERATIONS

•• **Product**

- **Recommendations**

  Must not be disposed of together with household garbage. Do not allow product to reach sewage systems

•• **Uncleaned packaging**

- **Recommendations**

  Disposal must be made according to official regulations

14. TRANSPORTATION INFORMATION

•• **DOT regulations**

- **Hazard class**

  Non Regulated

•• **Maritime transportation IMDG**

- **Marine pollutant**

  No

15. REGULATIONS

- **Product related hazard information**

  The product has been classified and marked in accordance with directives on hazardous materials

- **Hazard symbols**

  Harmful

- **Hazard-determining components of labeling**

  TGIC

- **Risk phrases**

  Harmful by inhalation and if swallowed
  May cause sensitization by skin contact

- **Safety phrases**

  Keep out of the reach of children
  Keep container dry
  Keep container in a well ventilated place
  Keep away from food, drink, and animal feed
  Do not breathe gas/fumes/vapour/spray
  If swallowed, seek medical advise immediately and show this container or label

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.

Pure, concentrated TGIC is toxic to humans. At the concentrations TGIC is found in powder coatings, it is not toxic and only contributes to nuisance dust. Users of TGIC containing powder coatings should be aware that such coatings could cause contact dermatitis or short term, asthma like symptoms in sensitive persons. The European Union regulates pure TGIC under its environment annex as a substance with potential reproductive effects.

WARNING: This product contains chemical(s) known by the State of California to cause cancer, birth defects or other reproductive harm.