

**M a t e r i a l   S a f e t y   D a t a   S h e e t**

Tam Ceramics, Inc.  
 Box C., Bridge Station  
 Niagara Falls, New York 14305  
 Telephone - (716) 278-9400

**Product:** SUPERPAX  
**Internal ID:** 51415

**MSDS No:** TAM CER / 51415  
**Date:** October, 1990

National Paint  
 and Coatings  
 Association  
  
 Hazardous Material  
 Identification  
 System

HEALTH HAZARD	0 - Minimal
FLAMMABILITY HAZARD	0 - Minimal
REACTIVITY HAZARD	0 - Minimal
PERSONAL PROTECTION	TO BE SUPPLIED BY USER DEPENDING ON USE CONDITIONS.

**SECTION I. MATERIAL IDENTIFICATION**

**Trade/Material Name:** SUPERPAX

**Description:** Ceramic Opacifier

**Other Designations:** Zirconium silicate

**CAS:** 14940-68-2

**Chemical Name:** zirconium silicate

**Manufacturer:** Tam Ceramics, Inc

**Phone:** (716) 278-9400

**SECTION II. INGREDIENTS AND HAZARDS**

Ingredient Name:	CAS Number:	Percent:	Exposure Limits:
Zircon (zirconium silicate)	14940-68-2	95	PEL (OSHA), TLV (ACGIH) For zirconium compounds (as Zr), the OSHA 8-hr TWA and ACGIH TLV-TWA is 5 mg/m <sup>3</sup>
Staurolite	12182-56-8	4	For quartz (crystalline silica), the TWA OSHA-PEL and ACGIH-TLV is 0.1 mg/m <sup>3</sup>
Titanium and ferrous minerals	14808-60-7	<0.5 0.5 (maximum)	
Quartz			

Exposure limits for SUPERPAX have not been established by OSHA or ACGIH. For particulates (not otherwise regulated), the OSHA 8 hr TWA is 5 mg/m<sup>3</sup> (respirable dust) and 15 mg/m<sup>3</sup> (total dust).



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YB 821012120  
MATERIAL SAFETY DATA SHEET  
339A HUNTSVILLE, AL 35894  
REVISED 1.14.1987

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SECTION III. PHYSICAL DATA

**Appearance & Odor:** Free-flowing sand, white and black granules, odorless

<b>Boiling point:</b> Not applicable	<b>Evaporation rate:</b> Not volatile
<b>Vapor pressure:</b> Not volatile	<b>Specific gravity (H<sub>2</sub>O=1):</b> 4.5
<b>Water solubility (%):</b> Insoluble	<b>Melting point:</b> 1590 to 1830°C
<b>Vapor density (air=1):</b> Not volatile	<b>% volatile by volume:</b> Not volatile
<b>pH:</b> Not applicable	<b>Molecular weight:</b> -----

SECTION IV. FIRE AND EXPLOSION DATA

**Flash Point (method):** Will not burn      **Limits: LEL %:** N/A      **UEL %:** N/A

**NFPA Flammable/Combustible Liquid Classification:** N/A

**NFPA Fire Hazard Symbol Codes: Flammability:** 0    **Health:** 0    **Reactivity:** 0    **Special:** ----

**Extinguishing Media:** Use the extinguishing media that is appropriate for the combustible or flammable materials in the area of use.      **Autoignition Temp:** N/A

**Unusual fire or explosion hazards:** none

**Special fire-fighting procedures:** as appropriate for combustibles in the area of use.

SECTION V. REACTIVITY DATA

Material is stable    Hazardous polymerization will not occur

**Chemical incompatibilities:** none known

**Conditions to avoid:** avoid creation of respirable dust

**Hazardous decomposition Products:** none known

SECTION VI. HEALTH HAZARD INFORMATION

This product is considered a probable carcinogen by IARC, group 2A

**Summary of risks:** see below



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### HEALTH HAZARD INFORMATION continued from page 2

#### First aid:

- Eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
- Skin contact:** This material is not hazardous by skin contact, however thorough cleansing of the skin after use is advisable.
- Inhalation:** Remove to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
- Ingestion:** This compound is not hazardous by ingestion. However, if symptoms occur, call a physician.

This product, as shipped, may contain particles in the respirable size range. If broken down to respirable size during use, the particles may be harmful to the respiratory system when inhaled. This product contains trace quantities (100 to 120 pCi/g) of naturally occurring uranium and thorium. Overexposure by inhalation of respirable dusts containing uranium and thorium may cause lung cancer. This product contains low levels of quartz, up to 0.5%. Dust released during normal handling can cause eye and respiratory irritation. Prolonged breathing of excessive concentrations of dust from this product may cause lung damage. This product contains crystalline silica which has been classified as a probable cause of cancer. IARC has classified crystalline silica as probably carcinogenic for humans (2A).

### SECTION VII. SPILL, LEAK AND DISPOSAL PROCEDURES

**Spill / Leak procedures:** Sweep up spillage.

**Waste management / Disposal:** Comply with Federal, State, and local regulations. If approved, may be transferred to a land disposal site.

### SECTION VIII. SPECIAL PROTECTION INFORMATION

#### Personal protective equipment:

**Goggles:** Safety glasses with side shields

**Gloves:** recommended

**Respirator:** NIOSH/MSHA approved air supplied abrasive blasting respirators should be worn by abrasive-blasting operators. NIOSH/MSHA approved filter respirators equipped with high-efficiency filters should be worn for occasional, intermittent, or routine exposures involving generation of respirable dust of this product.



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SPECIAL PROTECTION INFORMATION continued from page 3

### Workplace considerations:

**Ventilation:** Airborne dust levels should be controlled by physical enclosure of operations that may generate respirable dust of this product. The enclosure should be exhaust ventilated in accordance with 29 CFR 1910.94.

### SECTION IX. SPECIAL PRECAUTIONS

#### SARA TITLE III HAZARD CATEGORIES:

Extremely hazardous substance - No  
CERCLA Hazardous substance - No  
Toxic chemical - No

#### CANADIAN WHMIS CLASSIFICATION:

D-2A

#### CALIFORNIA PROP 65 WARNING:

This product contains substances (crystalline quartz and radionuclides) known to the State of California to cause cancer.  
Other ingredients are not listed as carcinogens by IARC, NTP, OSHA, or ACGIH.

DOT Class: not regulated by DOT  
Data source code(s): Dupont MSDS H-06068-2 07/90

UN Register: -----

Prepared/revised by: R.H. Steiger  
Environmental/Safety Engineer

October, 1990

The information provided in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. Component percentages are typical analyses based on historical production performance. Tam Ceramics does not make any expressed or implied warranty that future production will continue to possess these typical properties.