CHSUPAX Superpax

Material Safety Data Sheet

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: JULY 1994

National Paint and Coatings Association

Hazardous Material Identification System

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HEALITH 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

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SECTION	II.	INGREDIENTS	AND	HAZARDS	

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

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 3 (respirable dust) and 15 mg/m 3 (total dust).

Page 1 ---

MSDS 51415 continues on page 2

--- Page 1



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SECTION III. PHYSICAL DATA

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

Boiling point: Not applicable
Vapor pressure: Not volatile
Water solubility (%): Insoluble
Vapor density (air=1): Not volatile
pH: Not applicable

Evaporation rate: Not volatile Specific gravity (H,O=1): 4.5
Melting point: 1590 to 1830°C % volatile by volume: Not volatile Molecular weight:

SECTION IV. FIRE AND EXPLOSION DATA

Flash Point (method): Will not burn

Limits: LEL %: N/A

UELL %: 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:

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. HEALITH HAZARD INFORMATION

This product is considered a probable carcinogen by IARC, group 2A Summary of risks: see below

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HEALITH 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 proable 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.

Page 3 ---

SPECIAL PROTECTION INFORMATION continues on page 4

--- Page 3



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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

SECTION IX. SPECIAL PRECAUTIONS

SARA TITLE III HAZARD CATEGORIES:

Extremely hazardous substance No

CERCIA Hazardous substance Toxic chemical No No

CANADIAN WHMIS CLASSIFICATION:

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, NIP, OSHA, or ACGIH.

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

Prepared/revised by: R.H. Steiger

Environmental/Safety Engineer

JULY 1994

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 or implied warranty that future production will continue to possess these typical properties