MATERIAL SAFETY DATA SHEET

Section 1. Product and Company Information

MANUFACTURER: CERAM-KOTE COATINGS INCORPORATED

(Formerly Freecom, Inc.) 1800 Industrial Drive Big Spring, Texas 79720

TELEPHONE: For information purposes 8:00 a.m. to 5:00 p.m. CDT

(432) 263-8497 (800) 346-4299

EMERGENCY: For Chemical Emergency

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC Day or Night

Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +001 703-527-3887 (collect calls accepted)

DATE OF PREPARATION: September 4, 2015

SUPERCEDES MSDS DATED: October 30, 2014

PRODUCT NAME: CeRam-Kote SPG 22

Section 2. Composition and Ingredient Information

Common Name	Chemical Name	CAS Number	Weight %
PART-A CeRam-Kote SPG 22			
(Base)			
Ceramic Filler		14807-96-6 1344-28-1	50 - 60
*Proprietary #1	Epoxy Resin	28064-14-4	30 - 40
PART-B CeRam-Kote SPG 22 (Curing Agent)			
Modified Aliphatic Amine	Benzene-1,3-Dimethaneamine (MXDA)	1477-55-0	< 50

^{*}The specific chemical identity of this ingredient is declared proprietary information under 29 CFR 1910.1200, section (i) Trade Secret. Hazard information is provided in this MSDS for this ingredient.

Section 3. Physical Data

Description	CeRam-Kote SPG 22 (Catalyzed)	PART-A: CeRam-Kote SPG 22 (Base)	PART-B: CeRam-Kote SPG 22 (Curing Agent)
Boiling Point Vapor Density (Air = 1)	N/A >Air	N/A >Air	> 482°F (250°C) >Air
Solubility in Water	Insoluble	Insoluble	Slight (0.1 – 1%)
Viscosity (centapoise)	>200,000	>200,000	3,000 to 5,000
рН	Slightly Alkaline	Slightly Acidic	Alkaline
Appearance and odor	Paste, aromatic odor	Paste, aromatic odor	Straw yellow
Percent Solids by Volume	100.0	100.0	100.0
Density – packaged (on average)	1.61	1.68	1.12
Percent Volatiles by weight	0.0	0.0	0.0
Non-Volatiles	100.0	100.0	100.0

^{**}This percentage is from a fully catalyzed mix. The ratio is 7 parts A (Base) to 1 part B (Curing Agent). This ratio is from a catalyzed mix of CeRam-Kote SPG 22.

Section 4. Fire Fighting Measures

Description	CeRam-Kote SPG 22 (catalyzed) and/or PART-A: CeRam-Kote SPG 22 (Base)	PART-B: CeRam-Kote SPG 22 (Curing Agent)
Flashpoint	Greater than 200°F (93.3°C)	> 212°F (100°C)
Auto Ignition Temperature	No data	N/A
Extinguishing Media	Water fog, CO₂, or dry chemical	Foam, CO ₂ , or dry chemical. A water spray can also be used.
Unusual Fire and Explosion Hazards	No special fire hazards are known to be associated with this product.	Decomposition and combustion products may be toxic.
Fire Fighting Instructions	Water or foam may cause frothing which can be violent and possibly endanger the life of the firefighter. Water may be used to keep fire-exposed containers cool until fire is out. Wear a self-contained breathing apparatus with a full face piece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.	apparatus.
Hazardous Combustion Products	May form: Carbon dioxide and carbon monoxide, various hydrocarbons.	Carbon monoxide, carbon dioxide, aldehydes, and nitrogen oxides.

Section 5. Reactivity Data

Description	CeRam-Kote SPG 22 (catalyzed) and/or PART-A: CeRam-Kote SPG 22 (Base)	PART-B: CeRam-Kote SPG 22 (Curing Agent)
Stability	Stable	Stable
Incompatibility		Avoid strong oxidizing agents, acids, copper and its alloys.
		Carbon monoxide, carbon dioxide, aldehydes, and nitrogen oxides.
Hazardous Polymerization	Product will not undergo hazardous polymerization.	Will not occur.

Section 6. First Aid Measures

Description	CeRam-Kote SPG 22 (catalyzed) and/or PART-A: CeRam-Kote SPG 22 (Base)	PART-B: CeRam-Kote SPG 22 (Curing Agent)
Inhalation	If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.	Remove to fresh air. Give oxygen if breathing is difficult.
Eyes	Seek medical attention.	Immediately flush eyes with water for at least 15 minutes. Get immediate medical assistance.
Skin	· · · · · · · · · · · · · · · · · · ·	Promptly wash thoroughly with mild soap and water.
Ingestion	· · · · · · · · · · · · · · · · · · ·	DO NOT induce vomiting. Seek medical attention.

Section 7. Health and Safety

	CeRam-Kote SPG 22 (catalyzed) and/or PART-A: CeRam-Kote SPG 22 (Base)	PART-B: CeRam-Kote SPG 22 (Curing Agent)
_	Inhalation, skin, eye	Dermal
Exposure Potential Health Effects	Eye: Exposure may cause mild eye irritation. Symptoms may include stinging, tearing, and redness. Skin: Exposure causes skin irritation. Symptoms may include: allergic skin reaction. Swallowing: Single does oral toxicity is low. Swallowing small amounts during normal handling is not likely to cause harmful effects; swallowing large amounts may be harmful Inhalation: Exposure to vapor or mist is possible. Target Organ Effects: Overexposure to this material has been suggested as a cause of the following effects in humans, and may aggravate pre-existing disorders of these organs: skin sensitization.	Overexposure effects: Direct or prolonged skin or eye contact can cause skin and eye burns. Swallowing liquid can burn mouth and cause nausea, vomiting, diarrhea, abdominal pain and collapse. Can cause allergic skin and respiratory reactions after repetitive exposure. Animal studies on component(s) have shown effects on liver and fetus.
Medical Conditions Aggravated by Exposure Symptoms of Exposure	disease, skin disease, or central nervous system disorders may be at increase risk for worsening their conditions from exposure to this product. Gastrointestinal irritation (nausea, vomiting, diarrhea), irritation (nose, throat, respiratory tract).	Persons with a history of allergic conditions may be at increased risk for worsening their conditions from exposure to this product. Gastrointestinal irritation (nausea, vomiting, diarrhea), irritation (nose, throat, respiratory tract).

Section 8. Exposure Controls and Personal Protection

INGREDIENT	OSHA PEL (8-HR TWA)	ACGIH TLV (8-HR TWA)
*Proprietary #1	Not established	Not established
Ceramic Filler	2 mg/m³	2 mg/m³
Modified Aliphatic Amine	None established	None established

Section 9. Regulatory Information

Description	PART-A: CeRam-Kote SPG 22 (Base)	PART-B: CeRam-Kote SPG 22 (Curing Agent)
TSCA Status	Each ingredient is on the inventory	Chemical components listed on inventory
SARA Title III	Sec 313: None	Sec 312: Immediate Health Hazard. Delayed Health Hazard Sec 313: None

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Description	CeRam-Kote SPG 22 (catalyzed) and/or PART-A: CeRam-Kote SPG 22 (Base)	PART-B: CeRam-Kote SPG 22 (Curing Agent)
Engineering Controls	General dilution ventilation and/or exhaust ventilation should be provided as necessary to maintain exposures below regulatory limits.	Good general mechanical ventilation is recommended. Local exhaust recommended.
Respiratory Protection	If irritation occurs, or if the TLV or PEL is exceeded, use a NIOSH/MSHA approved air purifying respirator with organic vapor cartridges or canisters, or supplied air respirators. Use respiratory protection in accordance with your company's respiratory program, local regulations or OSHA regulations under 29 CFR 1910.134.	Organic chemical cartridge respirator, if needed.
Dermal Protection	Loose fitting long sleeved shirt, long pants and chemical resistant gloves such as neoprene or natural rubber gloves.	Wear impervious rubber gloves.
Eye Protection	Chemical protective goggles.	Splash-proof chemical goggles.

Section 11. Spills, Leaks and Disposal

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Description	CeRam-Kote SPG 22 (catalyzed) and/or	PART-B: CeRam-Kote SPG 22 (Curing Agent)
	PART-A: CeRam-Kote SPG 22 (Base)	
Land Spill	Small Spill: Absorb paste on vermiculite, floor absorbent or other absorbent material.	Avoid all personal contact. Take up with absorbent material. Shovel into closeable containers. Flush contaminated area with water.
Water Spill		This product is miscible in water. That means it is totally dissolved when mixed with water. Due to this property, this is considered a marine pollutant; however, when mixed with part A, and after the product cures, it is totally inert.
Air Release		This product reacts with air by absorbing the moisture out of the air. Take up with absorbent material. Shovel into closeable containers. Flush contaminated area with water.
Disposal Considerations		Not a hazardous waste under RCRA (40 CFR 261).

Section12. Transport Information

Description	PART-A CeRam-Kote SPG 22 (Base)	PART-B: CeRam-Kote SPG 22 (Curing Agent)
DOT/IATA/IMDG Shipping Names	Not regulated	Amines, Liquid, Corrosive, N.O.S., (Aliphatic Amine)
Hazard Class or Division	N/A	8
Secondary	None	None
UN Identification Number	N/A	UN 2735
Packing Group	N/A	П
Label(s) required	N/A	Corrosive (8)
Quantity Limitations(Air only)		
Passenger Aircraft	N/A	1 liters (1 quarts)
Cargo Aircraft	N/A	30 liters (7.5 gallons)
Packing Instructions		
Passenger Aircraft	N/A	851
Cargo Aircraft	N/A	855