

SDS prepared by Steve Davis of Aardvark Clay & Supplies GHS – United States

## Section 1. Product and Company Identification

**Product Name** TC106 - Tom Coleman Green to Black Satin Matt

**Synonym** Ceramic Glaze - dry

Supplier/ Aardvark Clay & Supplies

Manufacturer 1400 East Pomona St.
Santa Ana, Ca. 92705 USA
714-541-4157 phone

714-541-2021 fax contact@aardvarkclay.com

**Emergency Phone Number** 911

Product Use Pottery Manufacturing

**Restrictions on use** Not applicable

### Section 2. Hazards Identification

GHS/Hazcom	GHS/Hazcom 2012 Classifications:				
2012 Labels					
	Health:				
	CARCINOGENICITY (Inhalation) - Category 1A (quartz) (See Section 11 for carcinogen listings)				
	CARCINOGENICITY (Inhalation) - Category 1B (cobalt carbonate)				
	SPECIFIC TARGET ORGAN TOXICITY (Repeated Exposure) (respiratory tract) (inhalation) - Category 1 (quartz)				
	SPECIFIC TARGET ORGAN TOXICITY (Repeated Exposure) (respiratory tract) (inhalation) - Category 2 (iron oxide)				
	GERM CELL MUTAGENICITY - Category 2 (cobalt carb)				
	RESPIRATORY SENSITIZATION - Category 1 (cobalt carb))				
	REPRODUCTIVE TOXICITY - Category 1B (cobalt carb)				
	SKIN IRRITANT - Category 2 (quartz)				
	SPECIFIC TARGET ORGAN TOXICITY (Single Exposure) (respiratory tract) (inhalation) - Category 3 (quartz)				
SKIN SENSITIZER - Category 1 (cobalt carb)					
	Environmental:				
13	ACUTE HAZARD TO THE AQUATIC ENVIRONMENT - Category 1 (cobalt carb)				
324	CHRONIC HAZARD TO THE AQUATIC ENVIRONMENT - Category 1 (cobalt carb)				
Signal Word:	Physical:				
Danger	Not Hazardous				

Hazar	d Statements:				
Health	n:				
H303	May be harmful if swallowed.	H316	Causes mild skin irritation.		
H320	Causes eye irritation	H317	May cause an allergic skin irritation.		
H335	May cause respiratory irritation	H334	May cause allergy or breathing difficulties if inhaled.		
H350	May cause cancer.	H341	Suspected of causing genetic defects.		
H372 Causes damage to organs (lungs) through prolonged or repeated exposure (inhalation).		H360	May damage fertility or the unborn child.		
Environmental:		Physic	al:		
H401	H401 Toxic to aquatic life.		Not hazardous		
H413	May cause long-lasting harmful effects to aquatic life.				
Precau	ution Statements:				
Preve	ntion:				
P261	Avoid breathing dust/spray.	P273	Avoid release to the environment.		
P264	Wash hands thoroughly after handling.	P270	Do not eat, drink, or smoke when using this product.		
P272	Contaminated clothing should not be allowed out of the workplace.	P202	Do not handle until all safety precautions have been read and understood.		
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.	P284	[In case of inadequate ventilation] wear respiratory protection.		



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## Section 2. Hazards Identification

Respo	Response:						
P314	Get medical advice/attention if you feel unwell.			Collect Spillage.			
P341	Suspected of causing genetic defec	ts.	P363	Wash contaminated clothing before reuse.			
P305+	IF IN EYES: Rinse cautiously with w	ater for several minutes.	P301+	IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.			
P351+	Remove contact lenses if present a	nd easy to do – continue	P330+				
P338	rinsing.		P331				
P301+	IF SWALLOWED: Call a POISON CEN	NTER/doctor if you feel	P308+	If exposed or concerned: Get medical advice/attention.			
P312	unwell.						
P302+	IF ON SKIN: Wash with plenty of so	ap and water.	P304+	IF INHALED: Remove person to fresh air and keep comfortable			
P352				for breathing.			
P337+	If eye irritation persists, get medical advice/attention.		P333+	If skin irritation or a rash occurs: Get medical advice/attention.			
P313							
Storag	e:		Disposal:				
P402	Store in a dry place.		P501	Dispose of contents/container in accordance with			
P403	Store in a well ventilated place.			local/regional/national/international regulations.			
P404	Store in a closed container.						
P405	Store locked up.						
P233	Keep container tightly closed.						
Hazard	Hazards not otherwise classified: Slippery when wet.			ngredients with unknown acute toxicity: None known.			

## Section 3. Composition / Information on Ingredients

Substance/Mixture:

Mixture - A trade secret claim is made for this glaze.

Chemical		CAS Number	Ingredients	Chemical % of Mixture
Quartz, (Crystalline Silica	a) SiO2	CAS # 14808-60-7	Petalite, Whiting, Ball Clay	<2
Sodium-Calcium Pentabo	orate Octahydrate	CAS # 1319-33-1	Ulexite from Gerstley Borate	<1
N	laO.2CaO.5B2O3.5H2O			
Di-Calcium Hexaborate F	Pentahydrate	CAS # 12291-65-5	Colemanite from Gerstley Borate	<2
	Ca2B6O11.5H2O			
Kaolinite	Al2O3.2SiO2.2H2O	CAS # 1332-58-7	Ball Clay	<10
Calcium Carbonate	CaCO3	CAS # 1317-65-3	Limestone (Whiting)	<5
Red Iron Oxide Fe2O3		CAS # 1309-37-1	Rutile	<1
Titanium Dioxide	TiO2	CAS # 13463-67-7	Rutile	<10
Cobalt Carbonate (II) CoCO3		CAS # 513-79-1	Cobalt Carbonate	<1

## Section 4. First-Aid Measures

<b>Description of first-aid Measures</b>	:				
First-aid measures general	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical attention.				
First-aid measures after inhalation	Move victim to well ventilated area. If mechanical discomfort persists, seek medical attention.				
First-aid measures after skin contact	Remove contaminated clothing. Wash affected area with soap and warm water.  Obtain medical attention if irritation persists.				
First-aid measures after eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking, or redness persists.				
First-aid measures after ingestion	Rinse mouth. Do NOT induce vomiting. Unlikely to be toxic by ingestion.  If discomfort persists, seek medical attention.				
Most Important Symptoms and Ef	fects, Both Acute and Delayed:				
Symptoms/injuries	Causes damage to organs through prolonged or repeated exposure (inhalation).				
Symptoms/injuries after inhalation	May cause cancer by inhalation.  Dust from this product may cause irritation to the respiratory tract.				
Symptoms/injuries after skin contact	Prolonged contact with large amounts of dust may cause mechanical irritation.				
Symptoms/injuries after eye contact	Prolonged contact with large amounts of dust may cause mechanical irritation.				
Symptoms/injuries after ingestion	If a large quantity has been ingested, intestinal blockage and/or gastro-intestinal irritation may result.				
Chronic symptoms	Repeated or prolonged exposure to respirable crystalline silica dust may cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss. Acute silicosis can be fatal.				

If exposed or concerned, get medical advice and attention.



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## Section 5. Fire-Fighting Measures



#### National Fire Protection Association (U.S.A.)

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Suitable extinguishing media	This product is not combustible. Use extinguishing media appropriate for surrounding fire.			
Unsuitable extinguishing media	No restrictions on extinguishing media for this mixture.			
Special hazards arising from the substance or mixture	This mixture is not flammable and does not support fire			
Hazardous thermal decomposition products	This mixture does not contain hazardous decomposition products.			
Special protective actions for fire-fighters	Product can become slippery when wet.			
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment.			

### Section 6. Accidental Release Measures

Use of personal precautions	Avoid inhalation of dust.				
	Wear a N-95 face mask when cleaning up dust.				
Emergency procedures	There are no emergency procedures required for this mixture.				
Methods and Materials for containment	There are no special spill measures that apply for this mixture.				
Clean up procedures	For dusts, use a vacuum to clean up spillage. If appropriate, use gentle water spray to wet down and minimize dust generation. Place waste in a sealed container.				

## Section 7. Handling & Storage

10-13-2015

Precautions for safe handling	Keep bags out of direct sunlight. Do not expose dry glaze to moisture until use. Do not
	expose liquid glaze to freezing. Use proper lifting techniques to avoid physical injury.
Recommendations on the conditions for safe storage	No special storage considerations, but keep in a dry, cool location.

## Section 8. Exposure Controls / Personal Protection

Chemical	CAS Number	Occupational Exposure Limits			
Quartz,(Crystalline Silica)	CAS#14808-60-7	ACGIH TLV: TWA 0.025 mg/m³ (respirable)			
SiO2		OSHA PEL: TWA 10 mg/m³/ divided by the value "%SiO2" + 2 (respirable)			
		OSHA PEL: TWA 30 mg/m³/ divided by the value "%SiO2" + 2 (total dust)			
		CAL OSHA PEL: TWA .05 mg/ m³ (respirable)			
	0.10    4.040 0.0 4	CAL OSHA PEL: TWA .3 mg/ m³ (total)			
Sodium-Calcium Pentaborate	CAS # 1319-33-1	ACGIHTLV: TWA 2 mg/ m <sup>3</sup>			
Octahydrate		OSHA PEL: TWA 5 mg/m³ (respirable)			
NaO.2CaO.5B2O3.5H2O		OSHA PEL: TWA 15 mg/m³ (total) CAL OSHA PEL: TWA 5 mg/ m³			
Di-Calcium Hexaborate	CAS # 12291-65-5	ACGIHTLV: TWA 2 mg/ m <sup>3</sup>			
Pentahydrate		OSHA PEL: TWA 5 mg/m³ (respirable)			
Ca2B6O11.5H2O		OSHA PEL: TWA 15 mg/m³ (total) CAL OSHA PEL: TWA 5 mg/ m³			
Kaolinite	CAS#1332-58-7	ACGIH TLV: TWA 2 mg/ m³ (respirable) / particulate matter containing no			
Al2O3.2SiO2.2H2O		asbestos and <1% crystalline silica (respirable)			
		OSHA PEL: TWA 5 mg/m³ (respirable)			
		OSHA PEL: TWA 15 mg/m³ (total)			
		CAL OSHA PEL: TWA 2 mg/ m³ (respirable) CAL OSHA PEL: TWA not established (total)			
Calcium Carbonate	CAS# 1317-65-3	ACGIH TLV: Not Established			
CaCO3	CA3# 1317-03-3	OSHA PEL: TWA 5 mg/m³ (respirable)			
Cacos		OSHA PEL: TWA 15 mg/m³ (total)			
		CAL OSHA PEL: TWA 5 mg/ m³ (respirable)			
		CAL OSHA PEL: TWA 10 mg/ m³ (total)			
Red Iron Oxide	CAS # 1309-37-1	ACGIH TLV: TWA 5 mg/ m³ (respirable			
Fe2O3		OSHA PEL: TWA 5 mg/m³ (respirable)			
		OSHA PEL: TWA 15 mg/m³ (total)			
		CAL OSHA PEL: TWA 5 mg/m³ (respirable)			
Titanium Dioxide	CAS# 13463-67-7	ACGIH TLV: TWA 10 mg/ m³ (respirable)			
TiO2		OSHA PEL: TWA 15 mg/m <sup>3</sup>			
		CAL OSHA PEL: TWA 5 mg/ m³ (respirable)			
		CAL OSHA PEL: TWA 10 mg/ m³ (total)			
Cobalt Carbonate (II)	CAS # 513-79-1	ACGIH TLV: TWA .02 mg/ m <sup>3</sup> (respirable)			
CoCO3		OSHA PEL: TWA .01 mg/ m³ (respirable)			
		OSHA PEL: TWA not established			
		CAL OSHA PEL: TWA not established			
		CAL OSHA PEL: TWA not established			

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#### Section 8. Exposure Controls / Personal Protection

**Appropriate engineering controls:** When mixing dry glazes, use local exhaust ventilation or other engineering controls as required to maintain exposures below applicable occupational exposure limits (TLV).

#### Recommendations for personal protective measures

**Local Exhaust:** When mixing glazes, use sufficient local exhaust to reduce the level of respirable dust to the applicable standards set forth in Section III - ACGIH "Industrial Ventilation, A Manual of Recommended Practice," latest edition.

Respiratory Protection: Dust is generated when working with dry glaze. To minimize exposure to dust and/or crystalline silica(quartz), the mixing of dry glaze materials should be conducted with sufficient ventilation. Respirable dust and quartz levels should be monitored regularly. Dust and quartz levels in excess of appropriate exposure limits should be reduced by feasible engineering controls, including (but not limited to) wet suppression, ventilation, and process enclosure. When such controls are not feasible, NIOSH/MSHA approved respirators must be worn in accordance with a respiratory protection program which meets OSHA requirements as set forth at 29 CFR1910.134 and ANSI Z88.2-1080 - "Practices for Respiratory Protection".

In most cases, a disposable N-95 Particulate Respirator is sufficient.

**Eye Protection:** Use NIOSH/OSHA approved safety glasses with side shields. Face shields can also be used when mixing dry glaze. Wear tight fitting dust goggles when excessively (visible) dusty conditions are present or are anticipated. NIOSH recommends that contact lenses not be worn when working with crystalline silica dust.

Skin Protection: Use gloves and/or protective clothing if abrasion or allergic reactions are experienced.

**Work/Hygienic Practices:** Avoid creating and breathing dust. Wear NIOSH/MSHA approved dust mask when working in dust conditions - (N-95). Food, beverages, and smoking materials should NOT be in the work area. Persons using ceramic materials should wash thoroughly before eating, drinking, smoking, or applying cosmetics.





**Protective Clothing Pictograms** 

N-95 face mask

### Section 9. Physical & Chemical Properties

Physical State	Powder
Appearance	Tinted Powder
Odor	None
Odor Threshold	Not Applicable
pH	6-8
Solubility in Water	None
Melting Point	> 1300 °C (>2380°F)
Freezing Point	< 0 °C (<32°F)
Specific Gravity / Relative Density	2.35 g/cc
<b>Evaporation Rate</b>	No data available
Flash Point	Not Applicable
Auto-Ignition Temperature	Not Applicable
Decomposition Temperature	Not Applicable
Flammability	Not Applicable
Vapor Pressure	Not Applicable
Vapor Density	Not Applicable
Explosive Limits	Not Applicable
Viscosity	Not Applicable
Partition Coefficient: n-octanol/water	Not Applicable
Initial Boiling Point & Boiling Range	Not Applicable

## Section 10. Stability & Reactivity

Reactivity	Hazardous reactions will not occur under normal conditions.		
Chemical stability	Stable at standard temperature and pressure.		
	No stabilizers required to maintain chemical stability.		
Possibility of hazardous reactions	Hazardous polymerization will not occur.		
Conditions to avoid	None known		
Incompatible materials	None known		
Hazardous decomposition products	None known		



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#### Section 11. Toxicological Information

Routes of Exposure						
Descriptions of the delayed, immediate, or o	hronic effects from sho	rt- and long-	term exposure			
Inhalation	Inhalation of high concentrations of glaze dust may cause mechanical irritation					
	and discomfort. Long	term exposu	re may cause chi	ronic effects.		
Eye Contact	Not a primary eye irri	tant. May caı	ıse mechanical ir	ritation.		
Skin Contact/Irritation	Not a primary skin irri	tant. Not abs	orbed through s	kin. May cause	dry skin.	
Sensitization	Not a sensitizer					
Ingestion	Not an ingestion haza	_	•	n ingested, into	estinal blockage,	
	and/or gastrointestina	al irritation m	ay result.			
Chronic Effects						
OSHA Carcinogen	Lung cancer – Crystali	ne silica has	been classified b	y OSHA as a hu	man lung carcinogen.	
Mutagenic Effects	None Known					
Teratogenic Effects	None Known					
Developmental Toxicity	None Known					
Effects of Silicosis			Symptoms of Silicosis			
Bronchitis/Chronic Obstructive Pulmonary Disorder.			Shortness of breath; possible fever.			
Tuberculosis – Silicosis makes an individual m	•		Fatigue; loss of appetite.			
Scleroderma – a disease affecting skin, blood	vessels, joints and skele	etal muscles.				
Possible renal disease.			Respiratory failure, which may eventually lead to death.			
Remarks						
Carcinogenicity		•	re to respirable crystalline silica dust may cause lung damage in the			
	, ,		ms will include progressively more difficult breathing, cough, fever, and			
	weight loss. Acute sili					
	Short term exposure is of little concern.					
Numerical Measures of toxicity	None Known					
OSI	HA, IARC, and NT	P Carcino	gen Classific	cations		
Chemical with Carcinogen Potential		CAS#		OSHA	IARC	NTP
Quartz, (Crystalline Silica)	SiO2	CAS # 148	808-60-7	Yes	Yes - Group 1	Yes
Cobalt Carbonate (II)	CoCO3 CAS # 51		3-79-1	-	Yes - Group 2b	No
Titanium Dioxide	TiO2	CAS # 134	63-67-7	Yes	Yes - Group 2b	No

Substances, mixtures and exposure circumstances in this list have been classified by the <u>IARC</u> as *Group 1: The agent (mixture) is <u>carcinogenic</u> to <u>humans</u>. The exposure circumstance entails exposures that are carcinogenic to humans. This category is used when there is <u>sufficient evidence</u> of carcinogenicity in humans. Exceptionally, an agent (mixture) may be placed in this category when evidence of carcinogenicity in humans is less than sufficient but there is <u>sufficient evidence</u> of carcinogenicity in experimental animals and strong evidence in exposed humans that the agent (mixture) acts through a relevant mechanism of carcinogenicity.* 

The agents in this list have been classified in **Group 2A** (**probable** <u>carcinogens</u>)<sup>[1]</sup> by the **IARC** (<u>International Agency for Research on Cancer</u>). The term "agent" encompasses both substances and exposure circumstances that pose a risk. This designation is applied when there is *limited evidence* of <u>carcinogenicity</u> in <u>humans as well as sufficient evidence</u> of <u>carcinogenicity</u> in <u>experimental animals</u>. In some cases, an agent may be classified in this group when there is *inadequate evidence* of carcinogenicity in humans along with *sufficient evidence* of carcinogenicity in experimental animals and *strong evidence* that the carcinogenesis is mediated by a mechanism that also operates in humans. Exceptionally, an agent may be classified in this group solely on the basis of *limited evidence* of carcinogenicity in humans.

Substances, mixtures and exposure circumstances in this list have been classified by the International Agency for Research on Cancer (IARC) as Group 2B: The agent (mixture) is possibly carcinogenic to humans. The exposure circumstance entails exposures that are possibly carcinogenic to humans. This category is used for agents, mixtures and exposure circumstances for which there is limited evidence of carcinogenicity in humans and less than sufficient evidence of carcinogenicity in experimental animals. It may also be used when there is inadequate evidence of carcinogenicity in humans but there is sufficient evidence of carcinogenicity in experimental animals. In some instances, an agent, mixture or exposure circumstance for which there is inadequate evidence of carcinogenicity in humans but limited evidence of carcinogenicity in experimental animals together with supporting evidence from other relevant data may be placed in this group. Further details can be found in the preamble to the IARC Monograph.

### Section 12. Ecological Information (non-mandatory)

Ecotoxicity	None Known
Biochemical oxygen demand (BOD5)	None Known
Chemical oxygen demand (COD)	None Known
Products of Biodegradation	None Known
Toxicity of the products of Biodegradation	None Known
Bioaccumulation Potential	None Known
Potential to move from soil to groundwater	None Known
Other adverse effects	None Known



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#### 13. Disposal Considerations

Personal Protection	Refer to Section 8: "Recommendations for Personal Protective Measures" when disposing of glaze waste.		
Appropriate disposal containers	Standard waste disposal containers – no specials requirements.		
Appropriate disposal methods	Disposal of this product should comply with the requirements of environmental protection and waste		
	disposal legislation and any regional local authority requirements. In most cases, this is normal waste		
	disposal. The generation of waste should be avoided or minimized. Dispose of non-recyclable products		
	via a licensed waste disposal contractor. Waste packaging should be recycled.		
	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.		
Physical and chemical	Glaze waste should be placed in a sealed container or in a manner that reduces or eliminates the release		
properties that may affect	of the product. Packaging should be recycled before disposal.		
disposal			
Sewage disposal	Do not dispose of into sinks or toilets. They will clog.		
	Never dispose of this product into a sewer system.		
Special precautions for landfills	s There are no special precautions for disposal in a landfill.		
or incineration activities	This product is non-combustible and is not suitable for incineration.		

### Section 14. Transportation Information

Regulatory Information	UN Number	UN Proper Shipping Name	Transport Hazard Class	Packing Group Number	Bulk Transport Guidance	Special Precautions
DOT Classification	Not regulated	-	-	-	-	-
TDG Classification	Not regulated	-	-	-	-	-
ADR/RID Class	Not regulated	-	-	-	-	-
IMDG Class	Not regulated	-	-	-	-	-
IATA-DGR Class	Not regulated	-	-	-	-	-

### Section 15. Regulatory Information

TSCA – Toxic Substances Control Act - EPA	Quartz and other chemicals are listed in the TSCA Chemical Substance Inventory		
California Prop. 65	WARNING This product can expose you to quartz which is known to the State of		
	California to cause cancer.		
	For more information, go to www.P65Warnings.ca.gov		
SARA/Title III (Emergency Planning & Community Right-	This mixture contains no substances at or above the reporting threshold under		
to-Know Act)	Section 313, based on available data.		

## Section 16. Other Information

#### **Definitions**

**OSHA** means Occupational Safety & Health Administration

IARC means International Agency for Research on Cancer

NTP means National Toxicology Program

**CAS** means Chemical Abstract Service

**ACGIH** means American Conference of Governmental Industrial Hygienists

CAL-OSHA means California OSHA, most CAL-OSHA standards defer to the federal OSHA standards

**OSHA** means Occupational Safety & Health Administration

**OSHA PEL** means OSHA Permissible Exposure Limit

TWA means Time Weighted Average (average exposure on the basis of an 8h/day, 40h/week work schedule)

TLV means Threshold Limit Value - American Conference of Governmental Industrial Hygienists (ACGIH)

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