# Safety Data Sheet

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

## Section 1. Product and Company Identification

**Product Name** TC101 – Tom Coleman Deco White Base

**Synonym** Ceramic Glaze - dry

**Supplier/ Manufacturer**

Aardvark Clay & Supplies
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 2012 Labels | GHS/Hazcom 2012 Classifications: |
|---|---|
|  | **Health:** |
| | **CARCINOGENICITY (Inhalation)** - Category 1A (quartz) (See Section 11 for carcinogen listings) |
| | **SPECIFIC TARGET ORGAN TOXICITY (Repeated Exposure) (respiratory tract) (inhalation)** - Category 1 (quartz) |
| | **SPECIFIC TARGET ORGAN TOXICITY (Single Exposure) (respiratory tract irritant)** - Category 3 (quartz) |
| | **EYE IRRITANT** - Category 2A (quartz) |
| | **SKIN IRRITANT** - Category 2 (quartz) |
| | |
|  | **Environmental:** |
| | **ACUTE HAZARD TO THE AQUATIC ENVIRONMENT** - Category 1 (zinc oxide) |
| | **CHRONIC HAZARD TO THE AQUATIC ENVIRONMENT** - Category 1 (zinc oxide) |
| **Signal Word:** | **Physical:** |
| Danger | Not Hazardous |

| **Hazard Statements:** | | | |
|---|---|---|---|
| **Health:** | | | |
| H335 | May cause respiratory irritation. | H316 | Causes mild skin irritation. |
| H372 | Causes damage to organs (lungs) through prolonged or repeated exposure (inhalation). | H350 | May cause cancer by inhalation. |
| **Environmental:** | | **Physical:** | |
| H400 | Very toxic to aquatic life. | | No hazards |
| H410 | Very toxic to aquatic life with long-lasting effects. | | |

| **Precaution Statements:** | | | |
|---|---|---|---|
| **Prevention** | | | |
| P201 | Obtain special instructions before use. | P284 | [In case of inadequate ventilation] wear respiratory protection. |
| P202 | Do not handle until all safety precautions have been read and understood. | P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection. |
| P260 | Do not breathe dust/spray. | P273 | Avoid release to the environment. |
| P270 | Do not eat, drink, or smoke when using this product. | | |

## Section 2. Hazards Identification

| **Response** | | | |
|---|---|---|---|
| P301+ P312 | IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. | P308+ P313 | If exposed or concerned: Get medical advice/attention. |
| P301+ P330+ P331 | IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. | P305+ P351+ P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. |
| P304+ P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. | P337+ P313 | If eye irritation persists, get medical advice/attention. |
| P332+ P313 | If skin irritation occurs: Get medical advice/attention. | P391 | Collect Spillage. |
| **Storage** | | **Disposal** | |
| P402 | Store in a dry place. | P501 | Dispose of contents/container in accordance with local/regional/national/international regulation. |
| P403 | Store in a well ventilated place. | | |
| P404 | Store in a closed container. | | |
| P405 | Store locked up. | | |
| **Hazards not otherwise classified:** | Slippery when wet. | **% of ingredients with unknown acute toxicity:** | None known. |

## Section 3. Composition / Information on Ingredients

**Substance/Mixture:** Mixture - A trade secret claim is made for this glaze.

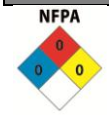
| **Chemical** | **CAS Number** | **Ingredients** | **Chemical % of Mixture** |
|---|---|---|---|
| Quartz, (Crystalline Silica) SiO2 | CAS # 14808-60-7 | Kaolin, Feldspar, Silica, Whiting, Zircopax | <27 |
| Kaolinite Al2O3.2SiO2.2H2O | CAS # 1332-58-7 | Kaolin | <25 |
| Calcium Carbonate CaCO3 | CAS# 1317-65-3 | Limestone (Whiting) | <15 |
| Magnesium Silicate (Talc/non-asbestos) Mg3Si4O10(OH)2 | CAS# 14807-96-6 | Talc | <10 |
| Calcium Magnesium Carbonate CaMg(CO3)2 | CAS # 16389-88-1 | Dolomite | <5 |
| Zinc Oxide ZnO | CAS # 1314-13-2 | Zinc Oxide | <5 |
| Zirconium Silicate ZrSio4 | CAS# 14940-68-2 | Zircopax Plus | <5 |

## Section 4. First-Aid Measures

| **Description of first-aid Measures:** | |
|---|---|
| **First-aid measures general** | Never give anything by mouth to an unconscious person.<br>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.<br>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.<br>If discomfort persists, seek medical attention. |
| **Most Important Symptoms and Effects, 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.<br>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 gastrointestinal 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.**

## Section 5. Fire-Fighting Measures




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

| | |
|---|---|
| **Suitable extinguishing media** | This product is not combustible.<br>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

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|---|---|
| **Use of personal precautions** | Avoid inhalation of dust.<br>**Wear a N-95 face mask when cleaning up glaze 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 mixture. |
| **Clean up procedures** | For dusts, use a vacuum to clean up spillage.<br>If appropriate, use gentle water spray to wet down and minimize dust generation.<br>Place waste in a sealed container.<br>**Wear a N-95 face mask when cleaning up dust.** |

## Section 7. Handling & Storage

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|---|---|
| **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.<br>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) SiO2 | CAS#14808-60-7 | ACGIH TLV: TWA 0.025 mg/ $m^3$ (respirable)<br>OSHA PEL: TWA 10 mg/$m^3$/ divided by the value "%SiO2" + 2 (respirable)<br>OSHA PEL: TWA 30 mg/$m^3$/ divided by the value "%SiO2" + 2 (total dust)<br>CAL OSHA PEL: TWA .05 mg/ $m^3$ (respirable)<br>CAL OSHA PEL: TWA .3 mg/ $m^3$ (total) |
| Kaolinite Al2O3.2SiO2.2H2O | CAS#1332-58-7 | ACGIH TLV: TWA 2 mg/ $m^3$ (respirable) / particulate matter containing no asbestos and <1% crystalline silica (respirable)<br>OSHA PEL: TWA 5 mg/$m^3$ (respirable)<br>OSHA PEL: TWA 15 mg/$m^3$ (total)<br>CAL OSHA PEL: TWA 2 mg/ $m^3$ (respirable)<br>CAL OSHA PEL: TWA not established (total) |
| Calcium Carbonate CaCO3 | CAS# 1317-65-3 | ACGIH TLV: Not Established<br>OSHA PEL: TWA 5 mg/$m^3$ (respirable)<br>OSHA PEL: TWA 15 mg/$m^3$ (total)<br>CAL OSHA PEL: TWA 5 mg/ $m^3$ (respirable)<br>CAL OSHA PEL: TWA 10 mg/ $m^3$ (total) |
| Magnesium Silicate (Talc/non-asbestos) Mg3Si4O10(OH)2 | CAS# 14807-96-6 | ACGIH TLV: TWA 2 mg/ $m^3$ (respirable)<br>OSHA PEL: TWA 20 mppcf<br>CAL OSHA PEL: TWA 2 mg/ $m^3$ (respirable) |
| Dolomite CaCO3.MgCO3<br>Calcium Magnesium Silicate | CAS # 16389-88-1 | ACGIH TLV: TWA 10 mg/ $m^3$<br>OSHA PEL: TWA 5 mg/$m^3$ (respirable)<br>OSHA PEL: TWA 15 mg/$m^3$ (total)<br>CAL OSHA PEL: TWA 10 mg/ $m^3$ |
| Zinc Oxide ZnO | CAS # 1314-13-2 | ACGIH TLV: TWA 2 mg/ $m^3$<br>OSHA PEL: TWA 5 mg/$m^3$ (respirable)<br>OSHA PEL: TWA 15 mg/$m^3$ (total)<br>CAL OSHA PEL: TWA not established |
| Zirconium Silicate ZrSio4 | CAS# 14940-68-2 | ACGIH TLV: TWA 5 mg/ $m^3$ (respirable<br>OSHA PEL: TWA 5 mg/$m^3$ (respirable)<br>OSHA PEL: TWA 15 mg/$m^3$ (total)<br>CAL OSHA PEL: TWA 5 mg/$m^3$ (respirable) |

## 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

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|---|---|
| **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 |
| **Evaporation Rate** | 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

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|---|---|
| **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 |

## Section 11. Toxicological Information

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|---|---|
| **Routes of Exposure** | Inhalation of dust, Ingestion |
| **Descriptions of the delayed, immediate, or chronic effects from short- and long-term exposure** | |
| **Inhalation** | Inhalation of high concentrations of glaze dust may cause mechanical irritation and discomfort. Long term exposure may cause chronic effects. |
| **Eye Contact** | Not a primary eye irritant. May cause mechanical irritation. |
| **Skin Contact/Irritation** | Not a primary skin irritant. Not absorbed through skin. May cause dry skin. |
| **Sensitization** | Not a sensitizer |
| **Ingestion** | Not an ingestion hazard. If a large quantity has been ingested, intestinal blockage and/or gastrointestinal irritation may result. |
| **Chronic Effects** | |
| **OSHA Carcinogen** | Lung cancer – Crystaline silica has been classified by OSHA as a human 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.<br>Tuberculosis – Silicosis makes an individual more susceptible to TB.<br>Scleroderma – a disease affecting skin, blood vessels, joints and skeletal muscles.<br>Possible renal disease. | Shortness of breath; possible fever.<br>Fatigue; loss of appetite.<br>Chest pain; dry, nonproductive cough.<br>Respiratory failure, which may eventually lead to death. |

| | |
|---|---|
| **Remarks** | |
| **Carcinogenicity** | Repeated or long term 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.<br>Short term exposure is of little concern. |
| **Numerical Measures of toxicity** | None Known |

**OSHA, IARC, and NTP Carcinogen Classifications**

| **Chemical with Carcinogen Potential** | | **CAS#** | **OSHA** | **IARC** | **NTP** |
|---|---|---|---|---|---|
| Quartz, (Crystalline Silica) | SiO2 | CAS # 14808-60-7 | Yes | Yes - Group 1 | Yes |

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

| | |
|---|---|
| **Ecotoxicity** | Contains <5% Zinc Oxide which is a hazardous to the aquatic environment. |
| **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 |

## 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 properties that may affect disposal** | Glaze waste should be placed in a sealed container or in a manner that reduces or eliminates the release of the product. Packaging should be recycled before 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 or incineration activities** | There are no special precautions for disposal in a landfill.<br>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 crystalline silica (quartz) which is known to the State of California to cause cancer .<br>For more information go to www.P65Warnings.ca.gov |
| **SARA/Title lll (Emergency Planning & Community Right-to-Know Act)** | This mixture contains no substances at or above the reporting threshold under 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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