

# SAFETY DATA SHEET



Revision date 31-Jan-2024

Revision Number 1

## 1. Identification

### Product identifier

**Product Name** Semi-Moist Underglaze - Black

### Other means of identification

**Product Code(s)** FG00711

**Synonyms** 41406B, 01676D

### Recommended use of the chemical and restrictions on use

**Recommended use**

**Restrictions on use**

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

American Art Clay Co Inc  
6060 Guion Road  
Indianapolis, IN 46254-1222 USA  
Toll Free: 1-800-999-5456  
CustomerCare@Amaco.com

### Emergency telephone number

**Emergency Telephone** U.S. Poison Control 1-800-222-1222

## 2. Hazard(s) identification

### Classification

Carcinogenicity	Category 1B
Specific target organ toxicity (repeated exposure)	Category 2

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

#### **Hazard statements**

Danger

# SAFETY DATA SHEET



Revision date 01-Feb-2024

Revision Number 1

## 1. Identification

### Product identifier

**Product Name** Semi-Moist Underglaze - Blue Green

### Other means of identification

**Product Code(s)** FG00712

**Synonyms** 41404Y, 01677E

### Recommended use of the chemical and restrictions on use

**Recommended use**

**Restrictions on use**

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

American Art Clay Co Inc  
6060 Guion Road  
Indianapolis, IN 46254-1222 USA  
Toll Free: 1-800-999-5456  
CustomerCare@Amaco.com

### Emergency telephone number

**Emergency Telephone** U.S. Poison Control 1-800-222-1222

## 2. Hazard(s) identification

### Classification

Acute toxicity - Oral	Category 4
Carcinogenicity	Category 1B
Specific target organ toxicity (repeated exposure)	Category 2

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

#### Hazard statements

Danger

H302 - Harmful if swallowed  
 H350 - May cause cancer  
 H373 - May cause damage to organs through prolonged or repeated exposure



**Physical state** Solid

**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Wear protective gloves/clothing and eye/face protection  
 Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Do not breathe dust/fume/gas/mist/vapors/spray

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention  
 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell  
 Rinse mouth

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Unknown acute toxicity**

193.48 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

**Other information**

Harmful to aquatic life with long lasting effects. Toxic to aquatic life.

**3. Composition/information on ingredients**

Not applicable.

**Mixture**

Chemical name	CAS No	Weight-%
C.I. Pigment Blue 36	68187-11-1	20 - 40
Frits, chemicals	65997-18-4	5 - <10
Quartz	14808-60-7	3 - <5
Kaolin	1332-58-7	3 - <5
1,2,3-Propanetriol	56-81-5	1 - <3

**4. First-aid measures**

**Description of first aid measures**

**General advice**

Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.

<b>Inhalation</b>	Remove to fresh air.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Ingestion</b>	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician.

#### **Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

#### **Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

### **5. Fire-fighting measures**

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Large Fire</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
<b>Specific hazards arising from the chemical</b>	No information available.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	None.
<b>Sensitivity to static discharge</b>	None.
<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

### **6. Accidental release measures**

#### **Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.
<b>Other information</b>	Refer to protective measures listed in Sections 7 and 8.

#### **Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Pick up and transfer to properly labeled containers.

### **7. Handling and storage**

#### **Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with

skin, eyes or clothing. Ensure adequate ventilation.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.

**8. Exposure controls/personal protection**

**Control parameters**

**Exposure Limits**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
C.I. Pigment Blue 36 68187-11-1	TWA: 0.02 mg/m <sup>3</sup> Co inhalable particulate matter	TWA: 0.5 mg/m <sup>3</sup> Cr (vacated) TWA: 0.5 mg/m <sup>3</sup> Cr	IDLH: 25 mg/m <sup>3</sup> Cr(III) TWA: 0.5 mg/m <sup>3</sup> Cr
Frits, chemicals 65997-18-4	STEL: 10 mg/m <sup>3</sup> Zr TWA: 0.01 mg/m <sup>3</sup> As TWA: 0.05 mg/m <sup>3</sup> Pb TWA: 0.01 mg/m <sup>3</sup> Cd TWA: 0.002 mg/m <sup>3</sup> Cd respirable particulate matter TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 1 mg/m <sup>3</sup> Cu dust and mist TWA: 3 mg/m <sup>3</sup> W respirable particulate matter in the absence of cobalt TWA: 5 mg/m <sup>3</sup> Zr TWA: 0.02 mg/m <sup>3</sup> Mn respirable particulate matter TWA: 0.1 mg/m <sup>3</sup> Mn inhalable particulate matter	TWA: 10 µg/m <sup>3</sup> As TWA: 50 µg/m <sup>3</sup> Pb TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 5 mg/m <sup>3</sup> Zr (vacated) TWA: 0.5 mg/m <sup>3</sup> Sb (vacated) TWA: 5 mg/m <sup>3</sup> Zr (vacated) STEL: 10 mg/m <sup>3</sup> Zr (vacated) Ceiling: 5 mg/m <sup>3</sup> Ceiling: 5 mg/m <sup>3</sup> Mn	IDLH: 5 mg/m <sup>3</sup> As IDLH: 9 mg/m <sup>3</sup> Cd dust and fume IDLH: 50 mg/m <sup>3</sup> Sb IDLH: 100 mg/m <sup>3</sup> Cu dust and mist IDLH: 500 mg/m <sup>3</sup> Mn IDLH: 25 mg/m <sup>3</sup> Zr IDLH: 100 mg/m <sup>3</sup> Pb IDLH: 10 mg/m <sup>3</sup> Ni Ceiling: 0.002 mg/m <sup>3</sup> As 15 min Ceiling: 0.05 mg/m <sup>3</sup> V dust and fume 15 min TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 1 mg/m <sup>3</sup> Cu dust and mist TWA: 1 mg/m <sup>3</sup> Mn TWA: 5 mg/m <sup>3</sup> except Zirconium tetrachloride Zr TWA: 0.050 mg/m <sup>3</sup> Pb TWA: 0.015 mg/m <sup>3</sup> except Nickel carbonyl Ni STEL: 3 mg/m <sup>3</sup> Mn STEL: 10 mg/m <sup>3</sup> Zr
Quartz 14808-60-7	TWA: 0.025 mg/m <sup>3</sup> respirable particulate matter	TWA: 50 µg/m <sup>3</sup> (vacated) TWA: 0.1 mg/m <sup>3</sup> respirable dust : (250)/(%SiO <sub>2</sub> + 5) mppcf TWA respirable fraction : (10)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA respirable fraction	IDLH: 50 mg/m <sup>3</sup> respirable dust TWA: 0.05 mg/m <sup>3</sup> respirable dust
Kaolin 1332-58-7	TWA: 2 mg/m <sup>3</sup> particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust
1,2,3-Propanetriol 56-81-5	-	TWA: 15 mg/m <sup>3</sup> mist, total particulate TWA: 5 mg/m <sup>3</sup> mist, respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> mist, total particulate (vacated) TWA: 5 mg/m <sup>3</sup> mist,	-

		respirable fraction	
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**Biological occupational exposure limits**

Chemical name	ACGIH
C.I. Pigment Blue 36 68187-11-1	15 µg/L - urine (Cobalt) - end of shift at end of workweek
Frits, chemicals 65997-18-4	200 µg/L - blood (Lead) - not critical 5 µg/g creatinine - urine (Cadmium) - not critical 5 µg/L - blood (Cadmium) - not critical

**Appropriate engineering controls**

**Engineering controls**                      Showers  
    Eyewash stations  
    Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**                      No special protective equipment required.

**Hand protection**                              Wear suitable gloves.

**Skin and body protection**                      Wear suitable protective clothing.

**Respiratory protection**                      No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations**                      Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

**9. Physical and chemical properties**

**Information on basic physical and chemical properties**

**Physical state**                                      Solid

**Appearance**

**Color**

**Odor**

**Odor threshold**

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Relative vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known

<b>Decomposition temperature</b>		None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known

**Other information**

<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	No information available
<b>VOC Content (%)</b>	No information available

**10. Stability and reactivity**

<b>Reactivity</b>	No information available.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	None known based on information supplied.
<b>Incompatible materials</b>	None known based on information supplied.
<b>Hazardous decomposition products</b>	None known based on information supplied.

**11. Toxicological information****Information on likely routes of exposure****Product Information**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Harmful if swallowed. (based on components).

**Symptoms related to the physical, chemical and toxicological characteristics**

<b>Symptoms</b>	No information available.
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**Acute toxicity****Numerical measures of toxicity**

No information available

**The following values are calculated based on chapter 3.1 of the GHS document**

<b>ATEmix (oral)</b>	1,518.00 mg/kg
<b>ATEmix (dermal)</b>	23,512.80 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	20.50 mg/l

**Unknown acute toxicity**

193.48 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
C.I. Pigment Blue 36 68187-11-1	-	-	> 5.05 mg/L ( Rat ) 4 h
Frits, chemicals 65997-18-4	> 2000 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-
Kaolin	> 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rat )	-

1332-58-7			
1,2,3-Propanetriol 56-81-5	= 12600 mg/kg ( Rat )	> 10 g/kg ( Rabbit )	> 2.75 mg/L ( Rat ) 4 h

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** No information available.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
C.I. Pigment Blue 36 68187-11-1	A3	Group 2B Group 3	Reasonably Anticipated	X
Frits, chemicals 65997-18-4	A1 A3 A2	Group 1 Group 2B Group 2A	Known Reasonably Anticipated	X
Quartz 14808-60-7	A2	Group 1	Known	X

**Legend**

**ACGIH (American Conference of Governmental Industrial Hygienists)**

- A1 - Known Human Carcinogen
- A2 - Suspected Human Carcinogen
- A3 - Animal Carcinogen

**IARC (International Agency for Research on Cancer)**

- Group 1 - Carcinogenic to Humans
- Group 2A - Probably Carcinogenic to Humans
- Group 2B - Possibly Carcinogenic to Humans
- Group 3 - Not Classifiable as to Carcinogenicity in Humans

**NTP (National Toxicology Program)**

- Known - Known Carcinogen
- Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

- X - Present

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Target organ effects** Liver, Kidney, Respiratory system, Eyes, Skin, Central nervous system, Blood, Central Vascular System (CVS), Lungs, Nasal Cavities, Lymphatic System, prostate, Gastrointestinal tract (GI).

**Aspiration hazard** No information available.



Other adverse effects

Interactive effects

## 12. Ecological information

**Ecotoxicity** Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
1,2,3-Propanetriol 56-81-5	-	LC50: 51 - 57mL/L (96h, Oncorhynchus mykiss)	-	-

**Persistence and degradability**

**Bioaccumulation**

### Component Information

Chemical name	Partition coefficient
1,2,3-Propanetriol 56-81-5	-1.76

**Other adverse effects** No information available.

## 13. Disposal considerations

### Disposal methods

**Waste from residues/unused products** Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations.

**Contaminated packaging** Do not reuse empty containers.

**California Hazardous Waste Status** This product contains one or more substances that are listed with the State of California as a hazardous waste.

## 14. Transport information

**DOT** Not regulated

## 15. Regulatory information

### International Inventories

**TSCA** Contact supplier for inventory compliance status.

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Corn syrup	8029-43-4	Present	Active
C.I. Pigment Blue 36	68187-11-1	Present	Active
Water	7732-18-5	Present	Active
Dextrin	9004-53-9	Present	Active
Frits, chemicals	65997-18-4	Present	Active
Feldspar	68476-25-5	Present	Active
Kaolin	1332-58-7	Present	Active
Quartz	14808-60-7	Present	Active
1,2,3-Propanetriol	56-81-5	Present	Active
Benzoic acid, 4-hydroxy-, methyl ester	99-76-3	Present	Active

**DSL/NDSL** Contact supplier for inventory compliance status.  
**EINECS/ELINCS** Contact supplier for inventory compliance status.  
**ENCS** Contact supplier for inventory compliance status.  
**IECSC** Contact supplier for inventory compliance status.  
**KECL** Contact supplier for inventory compliance status.  
**PICCS** Contact supplier for inventory compliance status.  
**AIIC** Contact supplier for inventory compliance status.  
**NZIoC** Contact supplier for inventory compliance status.

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AIIC** - Australian Inventory of Industrial Chemicals  
**NZIoC** - New Zealand Inventory of Chemicals

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
C.I. Pigment Blue 36 - 68187-11-1	0.1 1.0
Frits, chemicals - 65997-18-4	0.1 1.0

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
C.I. Pigment Blue 36 68187-11-1	-	X	-	-
Frits, chemicals 65997-18-4	-	X	-	-

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**US State Regulations**

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
C.I. Pigment Blue 36 68187-11-1	X	-	X
Water 7732-18-5	-	-	X
Frits, chemicals 65997-18-4	X	-	X
Feldspar 68476-25-5	X	-	X
Kaolin 1332-58-7	X	X	X
Quartz 14808-60-7	X	X	X
1,2,3-Propanetriol 56-81-5	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. Other information**

**NFPA** Health hazards 1 Flammability 0 Instability 0 Special hazards -  
**HMIS** Health hazards \* 2 Flammability 0 Physical hazards 0 Personal protection X  
*Chronic Hazard Star Legend \* = Chronic Health Hazard*

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend Section 8: Exposure controls/personal protection**

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)  
 Ceiling Maximum limit value \* Skin designation

**Key literature references and sources for data used to compile the SDS**

- Agency for Toxic Substances and Disease Registry (ATSDR)
- U.S. Environmental Protection Agency ChemView Database
- European Food Safety Authority (EFSA)
- EPA (Environmental Protection Agency)
- Acute Exposure Guideline Level(s) (AEGl(s))
- U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
- U.S. Environmental Protection Agency High Production Volume Chemicals
- Food Research Journal
- Hazardous Substance Database
- International Uniform Chemical Information Database (IUCLID)
- National Institute of Technology and Evaluation (NITE)
- Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
- NIOSH (National Institute for Occupational Safety and Health)
- National Library of Medicine's ChemID Plus (NLM CIP)
- National Library of Medicine's PubMed database (NLM PUBMED)
- National Toxicology Program (NTP)
- New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Revision date** 01-Feb-2024

**Revision Note**

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**

# SAFETY DATA SHEET



Revision date 01-Feb-2024

Revision Number 1

## 1. Identification

### Product identifier

**Product Name** Semi-Moist Underglaze - Dark Blue

### Other means of identification

**Product Code(s)** FG00715

**Synonyms** 41403X, 01679G

### Recommended use of the chemical and restrictions on use

**Recommended use**

**Restrictions on use**

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

American Art Clay Co Inc  
6060 Guion Road  
Indianapolis, IN 46254-1222 USA  
Toll Free: 1-800-999-5456  
CustomerCare@Amaco.com

### Emergency telephone number

**Emergency Telephone** U.S. Poison Control 1-800-222-1222

## 2. Hazard(s) identification

### Classification

Carcinogenicity	Category 1B
Specific target organ toxicity (repeated exposure)	Category 2

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

#### Hazard statements

Danger

H350 - May cause cancer

H373 - May cause damage to organs through prolonged or repeated exposure

**Physical state** Solid**Precautionary Statements - Prevention**

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Wear protective gloves/clothing and eye/face protection

Do not breathe dust/fume/gas/mist/vapors/spray

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other information**

May be harmful if swallowed. Harmful to aquatic life with long lasting effects. Toxic to aquatic life.

### 3. Composition/information on ingredients

Not applicable.

**Mixture**

Chemical name	CAS No	Weight-%
C.I. Pigment Blue 73	68187-40-6	40 - 60
Quartz	14808-60-7	3 - <5
Kaolin	1332-58-7	3 - <5
Frits, chemicals	65997-18-4	3 - <5
1,2,3-Propanetriol	56-81-5	1 - <3

### 4. First-aid measures

**Description of first aid measures****General advice**

IF exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance.

**Inhalation**

Remove to fresh air.

**Eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

**Skin contact**

Wash skin with soap and water.

**Ingestion**

Rinse mouth.

**Most important symptoms and effects, both acute and delayed**

Symptoms No information available.

**Indication of any immediate medical attention and special treatment needed**

Note to physicians Treat symptomatically.

**5. Fire-fighting measures**

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

**Specific hazards arising from the chemical** No information available.

**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.

**Other information** Refer to protective measures listed in Sections 7 and 8.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

**7. Handling and storage****Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place.

**8. Exposure controls/personal protection**

**Control parameters**

**Exposure Limits**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
C.I. Pigment Blue 73 68187-40-6	TWA: 0.02 mg/m <sup>3</sup> Co inhalable particulate matter	-	-
Quartz 14808-60-7	TWA: 0.025 mg/m <sup>3</sup> respirable particulate matter	TWA: 50 µg/m <sup>3</sup> (vacated) TWA: 0.1 mg/m <sup>3</sup> respirable dust : (250)/(%SiO <sub>2</sub> + 5) mppcf TWA respirable fraction : (10)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA respirable fraction	IDLH: 50 mg/m <sup>3</sup> respirable dust TWA: 0.05 mg/m <sup>3</sup> respirable dust
Kaolin 1332-58-7	TWA: 2 mg/m <sup>3</sup> particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust
Frits, chemicals 65997-18-4	STEL: 10 mg/m <sup>3</sup> Zr TWA: 0.01 mg/m <sup>3</sup> As TWA: 0.05 mg/m <sup>3</sup> Pb TWA: 0.01 mg/m <sup>3</sup> Cd TWA: 0.002 mg/m <sup>3</sup> Cd respirable particulate matter TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 1 mg/m <sup>3</sup> Cu dust and mist TWA: 3 mg/m <sup>3</sup> W respirable particulate matter in the absence of cobalt TWA: 5 mg/m <sup>3</sup> Zr TWA: 0.02 mg/m <sup>3</sup> Mn respirable particulate matter TWA: 0.1 mg/m <sup>3</sup> Mn inhalable particulate matter	TWA: 10 µg/m <sup>3</sup> As TWA: 50 µg/m <sup>3</sup> Pb TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 5 mg/m <sup>3</sup> Zr (vacated) TWA: 0.5 mg/m <sup>3</sup> Sb (vacated) TWA: 5 mg/m <sup>3</sup> Zr (vacated) STEL: 10 mg/m <sup>3</sup> Zr (vacated) Ceiling: 5 mg/m <sup>3</sup> Ceiling: 5 mg/m <sup>3</sup> Mn	IDLH: 5 mg/m <sup>3</sup> As IDLH: 9 mg/m <sup>3</sup> Cd dust and fume IDLH: 50 mg/m <sup>3</sup> Sb IDLH: 100 mg/m <sup>3</sup> Cu dust and mist IDLH: 500 mg/m <sup>3</sup> Mn IDLH: 25 mg/m <sup>3</sup> Zr IDLH: 100 mg/m <sup>3</sup> Pb IDLH: 10 mg/m <sup>3</sup> Ni Ceiling: 0.002 mg/m <sup>3</sup> As 15 min Ceiling: 0.05 mg/m <sup>3</sup> V dust and fume 15 min TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 1 mg/m <sup>3</sup> Cu dust and mist TWA: 1 mg/m <sup>3</sup> Mn TWA: 5 mg/m <sup>3</sup> except Zirconium tetrachloride Zr TWA: 0.050 mg/m <sup>3</sup> Pb TWA: 0.015 mg/m <sup>3</sup> except Nickel carbonyl Ni STEL: 3 mg/m <sup>3</sup> Mn STEL: 10 mg/m <sup>3</sup> Zr
1,2,3-Propanetriol 56-81-5	-	TWA: 15 mg/m <sup>3</sup> mist, total particulate TWA: 5 mg/m <sup>3</sup> mist, respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> mist, total particulate (vacated) TWA: 5 mg/m <sup>3</sup> mist, respirable fraction	-

**Biological occupational exposure limits**

Chemical name	ACGIH
C.I. Pigment Blue 73 68187-40-6	15 µg/L - urine (Cobalt) - end of shift at end of workweek
Frits, chemicals 65997-18-4	200 µg/L - blood (Lead) - not critical 5 µg/g creatinine - urine (Cadmium) - not critical



5 µg/L - blood (Cadmium) - not critical

**Appropriate engineering controls**

**Engineering controls**                      Showers  
    Eyewash stations  
    Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**                      No special protective equipment required.

**Hand protection**                              Wear suitable gloves.

**Skin and body protection**                      Wear suitable protective clothing.

**Respiratory protection**                      No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations**                      Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

**9. Physical and chemical properties****Information on basic physical and chemical properties**

**Physical state**                                      Solid

**Appearance**

**Color**

**Odor**

**Odor threshold**

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Relative vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

**Other information**

**Explosive properties**                              No information available

**Oxidizing properties**                              No information available

**VOC Content (%)**                                  No information available

**10. Stability and reactivity**

<b>Reactivity</b>	No information available.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	None known based on information supplied.
<b>Incompatible materials</b>	None known based on information supplied.
<b>Hazardous decomposition products</b>	None known based on information supplied.

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	May be harmful if swallowed.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Symptoms</b>	No information available.
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### Acute toxicity

#### Numerical measures of toxicity

No information available

The following values are calculated based on chapter 3.1 of the GHS document

<b>ATEmix (oral)</b>	2,325.60 mg/kg
<b>ATEmix (dermal)</b>	31,948.90 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	29.90 mg/l

#### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
C.I. Pigment Blue 73 68187-40-6	-	-	= 5.3 mg/L ( Rat ) 4 h > 5.3 mg/L ( Rat ) 4 h
Kaolin 1332-58-7	> 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rat )	-
Frits, chemicals 65997-18-4	> 2000 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-
1,2,3-Propanetriol 56-81-5	= 12600 mg/kg ( Rat )	> 10 g/kg ( Rabbit )	> 2.75 mg/L ( Rat ) 4 h

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/eye irritation</b>	No information available.
<b>Respiratory or skin sensitization</b>	No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
C.I. Pigment Blue 73 68187-40-6	A3	Group 2B	Reasonably Anticipated	X
Quartz 14808-60-7	A2	Group 1	Known	X
Frits, chemicals 65997-18-4	A1 A3 A2	Group 1 Group 2B Group 2A	Known Reasonably Anticipated	X

**Legend**

**ACGIH (American Conference of Governmental Industrial Hygienists)**

- A1 - Known Human Carcinogen
- A2 - Suspected Human Carcinogen
- A3 - Animal Carcinogen

**IARC (International Agency for Research on Cancer)**

- Group 1 - Carcinogenic to Humans
- Group 2A - Probably Carcinogenic to Humans
- Group 2B - Possibly Carcinogenic to Humans

**NTP (National Toxicology Program)**

- Known - Known Carcinogen
- Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

X - Present

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Target organ effects** Liver, Kidney, Respiratory system, Eyes, Skin, Central nervous system, Blood, Central Vascular System (CVS), Lungs, Nasal Cavities, Lymphatic System, prostate, Gastrointestinal tract (GI).

**Aspiration hazard** No information available.

**Other adverse effects**

**Interactive effects**

**12. Ecological information**

**Ecotoxicity** Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
1,2,3-Propanetriol 56-81-5	-	LC50: 51 - 57mL/L (96h, Oncorhynchus mykiss)	-	-

**Persistence and degradability****Bioaccumulation****Component Information**

Chemical name	Partition coefficient
1,2,3-Propanetriol 56-81-5	-1.76

**Other adverse effects** No information available.

**13. Disposal considerations****Disposal methods**

**Waste from residues/unused products** Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations.

**Contaminated packaging** Do not reuse empty containers.

**California Hazardous Waste Status** This product contains one or more substances that are listed with the State of California as a hazardous waste.

**14. Transport information**

**DOT** Not regulated

**15. Regulatory information****International Inventories**

**TSCA** Contact supplier for inventory compliance status.

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Corn syrup	8029-43-4	Present	Active
C.I. Pigment Blue 73	68187-40-6	Present	Active
Water	7732-18-5	Present	Active
Dextrin	9004-53-9	Present	Active
Feldspar	68476-25-5	Present	Active
Kaolin	1332-58-7	Present	Active
Quartz	14808-60-7	Present	Active
Frits, chemicals	65997-18-4	Present	Active
1,2,3-Propanetriol	56-81-5	Present	Active
Benzoic acid, 4-hydroxy-, methyl ester	99-76-3	Present	Active

**DSL/NDL** Contact supplier for inventory compliance status.  
**EINECS/ELINCS** Contact supplier for inventory compliance status.  
**ENCS** Contact supplier for inventory compliance status.  
**IECSC** Contact supplier for inventory compliance status.  
**KECL** Contact supplier for inventory compliance status.  
**PICCS** Contact supplier for inventory compliance status.  
**AIIC** Contact supplier for inventory compliance status.  
**NZIoC** Contact supplier for inventory compliance status.

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AIIC** - Australian Inventory of Industrial Chemicals  
**NZIoC** - New Zealand Inventory of Chemicals

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
C.I. Pigment Blue 73 - 68187-40-6	0.1
Frits, chemicals - 65997-18-4	0.1 1.0

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Frits, chemicals 65997-18-4	-	X	-	-

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**US State Regulations**

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
C.I. Pigment Blue 73 68187-40-6	X	-	X
Water 7732-18-5	-	-	X

Feldspar 68476-25-5	X	-	X
Kaolin 1332-58-7	X	X	X
Quartz 14808-60-7	X	X	X
Frits, chemicals 65997-18-4	X	-	X
1,2,3-Propanetriol 56-81-5	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. Other information**

**NFPA** Health hazards 1 Flammability 0 Instability 0 Special hazards -  
**HMIS** Health hazards \* 2 1 Flammability 0 Physical hazards 0 Personal protection X  
*Chronic Hazard Star Legend \* = Chronic Health Hazard*

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend Section 8: Exposure controls/personal protection**

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)  
 Ceiling Maximum limit value \* Skin designation

**Key literature references and sources for data used to compile the SDS**

- Agency for Toxic Substances and Disease Registry (ATSDR)
- U.S. Environmental Protection Agency ChemView Database
- European Food Safety Authority (EFSA)
- EPA (Environmental Protection Agency)
- Acute Exposure Guideline Level(s) (AEGl(s))
- U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
- U.S. Environmental Protection Agency High Production Volume Chemicals
- Food Research Journal
- Hazardous Substance Database
- International Uniform Chemical Information Database (IUCLID)
- National Institute of Technology and Evaluation (NITE)
- Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
- NIOSH (National Institute for Occupational Safety and Health)
- National Library of Medicine's ChemID Plus (NLM CIP)
- National Library of Medicine's PubMed database (NLM PUBMED)
- National Toxicology Program (NTP)
- New Zealand's Chemical Classification and Information Database (CCID)
- Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
- Organization for Economic Co-operation and Development High Production Volume Chemicals Program
- Organization for Economic Co-operation and Development Screening Information Data Set
- World Health Organization

Revision date 01-Feb-2024

**Revision Note**

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**

# SAFETY DATA SHEET



Revision date 01-Feb-2024

Revision Number 1

## 1. Identification

### Product identifier

**Product Name** Semi-Moist Underglaze - Dark Green

### Other means of identification

**Product Code(s)** FG00740

**Synonyms** 41405A, 01681X

### Recommended use of the chemical and restrictions on use

**Recommended use**

**Restrictions on use**

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

American Art Clay Co Inc  
6060 Guion Road  
Indianapolis, IN 46254-1222 USA  
Toll Free: 1-800-999-5456  
CustomerCare@Amaco.com

### Emergency telephone number

**Emergency Telephone** U.S. Poison Control 1-800-222-1222

## 2. Hazard(s) identification

### Classification

Acute toxicity - Oral	Category 4
Specific target organ toxicity (repeated exposure)	Category 2

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

#### Hazard statements

Warning

H302 - Harmful if swallowed

H373 - May cause damage to organs through prolonged or repeated exposure



**Physical state** Solid

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Do not breathe dust/fume/gas/mist/vapors/spray

**Precautionary Statements - Response**

Get medical advice/attention if you feel unwell

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

Rinse mouth

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Unknown acute toxicity**

152.2 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

**Other information**

Harmful to aquatic life with long lasting effects. Toxic to aquatic life.

### 3. Composition/information on ingredients

Not applicable.

**Mixture**

Chemical name	CAS No	Weight-%
1306-06-5	Trade secret	40 - 60
Quartz	14808-60-7	3 - <5
Kaolin	1332-58-7	3 - <5
Frits, chemicals	65997-18-4	3 - <5
1,2,3-Propanetriol	56-81-5	1 - <3

### 4. First-aid measures

**Description of first aid measures**

**General advice**

Show this safety data sheet to the doctor in attendance.

**Inhalation**

Remove to fresh air.

**Eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

**Skin contact**

Wash skin with soap and water.

**Ingestion**

Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious



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person. Call a physician.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**5. Fire-fighting measures**

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

**Specific hazards arising from the chemical** No information available.

**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.

**Other information** Refer to protective measures listed in Sections 7 and 8.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

**7. Handling and storage****Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.

**8. Exposure controls/personal protection**

Control parameters

**Exposure Limits**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
1306-06-5	-	TWA: 0.5 mg/m <sup>3</sup> Cr (vacated) TWA: 0.5 mg/m <sup>3</sup> Cr	IDLH: 25 mg/m <sup>3</sup> Cr(III) TWA: 0.5 mg/m <sup>3</sup> Cr
Quartz 14808-60-7	TWA: 0.025 mg/m <sup>3</sup> respirable particulate matter	TWA: 50 µg/m <sup>3</sup> (vacated) TWA: 0.1 mg/m <sup>3</sup> respirable dust : (250)/(%SiO <sub>2</sub> + 5) mppcf TWA respirable fraction : (10)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA respirable fraction	IDLH: 50 mg/m <sup>3</sup> respirable dust TWA: 0.05 mg/m <sup>3</sup> respirable dust
Kaolin 1332-58-7	TWA: 2 mg/m <sup>3</sup> particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust
Frits, chemicals 65997-18-4	STEL: 10 mg/m <sup>3</sup> Zr TWA: 0.01 mg/m <sup>3</sup> As TWA: 0.05 mg/m <sup>3</sup> Pb TWA: 0.01 mg/m <sup>3</sup> Cd TWA: 0.002 mg/m <sup>3</sup> Cd respirable particulate matter TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 1 mg/m <sup>3</sup> Cu dust and mist TWA: 3 mg/m <sup>3</sup> W respirable particulate matter in the absence of cobalt TWA: 5 mg/m <sup>3</sup> Zr TWA: 0.02 mg/m <sup>3</sup> Mn respirable particulate matter TWA: 0.1 mg/m <sup>3</sup> Mn inhalable particulate matter	TWA: 10 µg/m <sup>3</sup> As TWA: 50 µg/m <sup>3</sup> Pb TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 5 mg/m <sup>3</sup> Zr (vacated) TWA: 0.5 mg/m <sup>3</sup> Sb (vacated) TWA: 5 mg/m <sup>3</sup> Zr (vacated) STEL: 10 mg/m <sup>3</sup> Zr (vacated) Ceiling: 5 mg/m <sup>3</sup> Ceiling: 5 mg/m <sup>3</sup> Mn	IDLH: 5 mg/m <sup>3</sup> As IDLH: 9 mg/m <sup>3</sup> Cd dust and fume IDLH: 50 mg/m <sup>3</sup> Sb IDLH: 100 mg/m <sup>3</sup> Cu dust and mist IDLH: 500 mg/m <sup>3</sup> Mn IDLH: 25 mg/m <sup>3</sup> Zr IDLH: 100 mg/m <sup>3</sup> Pb IDLH: 10 mg/m <sup>3</sup> Ni Ceiling: 0.002 mg/m <sup>3</sup> As 15 min Ceiling: 0.05 mg/m <sup>3</sup> V dust and fume 15 min TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 1 mg/m <sup>3</sup> Cu dust and mist TWA: 1 mg/m <sup>3</sup> Mn TWA: 5 mg/m <sup>3</sup> except Zirconium tetrachloride Zr TWA: 0.050 mg/m <sup>3</sup> Pb TWA: 0.015 mg/m <sup>3</sup> except Nickel carbonyl Ni STEL: 3 mg/m <sup>3</sup> Mn STEL: 10 mg/m <sup>3</sup> Zr
1,2,3-Propanetriol 56-81-5	-	TWA: 15 mg/m <sup>3</sup> mist, total particulate TWA: 5 mg/m <sup>3</sup> mist, respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> mist, total particulate (vacated) TWA: 5 mg/m <sup>3</sup> mist, respirable fraction	-

**Biological occupational exposure limits**

Chemical name	ACGIH
Frits, chemicals 65997-18-4	200 µg/L - blood (Lead) - not critical 5 µg/g creatinine - urine (Cadmium) - not critical

	5 µg/L - blood (Cadmium) - not critical
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**Appropriate engineering controls**

**Engineering controls**                      Showers  
    Eyewash stations  
    Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**                      No special protective equipment required.

**Skin and body protection**                No special protective equipment required.

**Respiratory protection**                  No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations**        Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and chemical properties**

**Information on basic physical and chemical properties**

**Physical state**                                Solid

**Appearance**

**Color**

**Odor**

**Odor threshold**

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	No data available	None known
<b>Melting point / freezing point</b>	No data available	None known
<b>Initial boiling point and boiling range</b>	No data available	None known
<b>Flash point</b>	No data available	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Relative vapor density</b>	No data available	None known
<b>Relative density</b>	No data available	None known
<b>Water solubility</b>	No data available	None known
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>		None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known

**Other information**

**Explosive properties**                      No information available

**Oxidizing properties**                      No information available

**VOC Content (%)**                            No information available

**10. Stability and reactivity**

**Reactivity**                                    No information available.

<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	None known based on information supplied.
<b>Incompatible materials</b>	None known based on information supplied.
<b>Hazardous decomposition products</b>	None known based on information supplied.

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Harmful if swallowed. (based on components).

### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

#### Acute toxicity

#### Numerical measures of toxicity

No information available

The following values are calculated based on chapter 3.1 of the GHS document

<b>ATEmix (oral)</b>	1,956.20 mg/kg
<b>ATEmix (dermal)</b>	31,948.90 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	29.90 mg/l

#### Unknown acute toxicity

152.2 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

#### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
1306-06-5	> 5000 mg/kg ( Rat )	-	> 5.41 mg/L ( Rat ) 4 h
Kaolin 1332-58-7	> 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rat )	-
Frits, chemicals 65997-18-4	> 2000 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-
1,2,3-Propanetriol 56-81-5	= 12600 mg/kg ( Rat )	> 10 g/kg ( Rabbit )	> 2.75 mg/L ( Rat ) 4 h

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Skin corrosion/irritation** No information available.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
1306-06-5	-	Group 3	-	-
Quartz 14808-60-7	A2	Group 1	Known	X
Frits, chemicals 65997-18-4	A1 A3 A2	Group 1 Group 2B Group 2A	Known Reasonably Anticipated	X

**Legend**

**ACGIH (American Conference of Governmental Industrial Hygienists)**

- A1 - Known Human Carcinogen
- A2 - Suspected Human Carcinogen
- A3 - Animal Carcinogen

**IARC (International Agency for Research on Cancer)**

- Group 1 - Carcinogenic to Humans
- Group 2A - Probably Carcinogenic to Humans
- Group 2B - Possibly Carcinogenic to Humans
- Group 3 - Not Classifiable as to Carcinogenicity in Humans

**NTP (National Toxicology Program)**

- Known - Known Carcinogen
- Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

- X - Present

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Target organ effects** Liver, Kidney, Respiratory system, Eyes, Skin, Central nervous system, Blood, Central Vascular System (CVS), Lungs, Nasal Cavities, Lymphatic System, prostate, Gastrointestinal tract (GI).

**Aspiration hazard** No information available.

**Other adverse effects**

**Interactive effects**

**12. Ecological information**

**Ecotoxicity** Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
1306-06-5	-	LC50: >10000mg/L (96h,	-	-

		Danio rerio)		
1,2,3-Propanetriol 56-81-5	-	LC50: 51 - 57mL/L (96h, Oncorhynchus mykiss)	-	-

**Persistence and degradability**

**Bioaccumulation**

**Component Information**

Chemical name	Partition coefficient
1,2,3-Propanetriol 56-81-5	-1.76

**Other adverse effects** No information available.

**13. Disposal considerations**

**Disposal methods**

**Waste from residues/unused products** Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations.

**Contaminated packaging** Do not reuse empty containers.

**California Hazardous Waste Status** This product contains one or more substances that are listed with the State of California as a hazardous waste.

**14. Transport information**

**DOT** Not regulated

**15. Regulatory information**

**International Inventories**

**TSCA** Contact supplier for inventory compliance status.

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Corn syrup	8029-43-4	Present	Active
1306-06-5	-	Present	Active
Water	7732-18-5	Present	Active
Dextrin	9004-53-9	Present	Active
Feldspar	68476-25-5	Present	Active
Kaolin	1332-58-7	Present	Active
Quartz	14808-60-7	Present	Active
Frits, chemicals	65997-18-4	Present	Active

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
1,2,3-Propanetriol	56-81-5	Present	Active
Benzoic acid, 4-hydroxy-, methyl ester	99-76-3	Present	Active

**DSL/NDSL** Contact supplier for inventory compliance status.  
**EINECS/ELINCS** Contact supplier for inventory compliance status.  
**ENCS** Contact supplier for inventory compliance status.  
**IECSC** Contact supplier for inventory compliance status.  
**KECL** Contact supplier for inventory compliance status.  
**PICCS** Contact supplier for inventory compliance status.  
**AIIC** Contact supplier for inventory compliance status.  
**NZIoC** Contact supplier for inventory compliance status.

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AIIC** - Australian Inventory of Industrial Chemicals  
**NZIoC** - New Zealand Inventory of Chemicals

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
1306-06-5 -	1.0
Frits, chemicals - 65997-18-4	0.1 1.0

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
1306-06-5	-	X	-	-
Frits, chemicals 65997-18-4	-	X	-	-

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**US State Regulations**

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
1306-06-5	X	X	X
Water 7732-18-5	-	-	X
Feldspar 68476-25-5	X	-	X
Kaolin 1332-58-7	X	X	X
Quartz 14808-60-7	X	X	X
Frits, chemicals 65997-18-4	X	-	X
1,2,3-Propanetriol 56-81-5	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. Other information**

<b>NFPA</b>	Health hazards 1	Flammability 0	Instability 0	Special hazards -
<b>HMIS</b>	Health hazards * 2	Flammability 0	Physical hazards 0	Personal protection X

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend Section 8: Exposure controls/personal protection**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

**Key literature references and sources for data used to compile the SDS**

- Agency for Toxic Substances and Disease Registry (ATSDR)
- U.S. Environmental Protection Agency ChemView Database
- European Food Safety Authority (EFSA)
- EPA (Environmental Protection Agency)
- Acute Exposure Guideline Level(s) (AEGl(s))
- U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
- U.S. Environmental Protection Agency High Production Volume Chemicals
- Food Research Journal
- Hazardous Substance Database
- International Uniform Chemical Information Database (IUCLID)
- National Institute of Technology and Evaluation (NITE)
- Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
- NIOSH (National Institute for Occupational Safety and Health)
- National Library of Medicine's ChemID Plus (NLM CIP)
- National Library of Medicine's PubMed database (NLM PUBMED)
- National Toxicology Program (NTP)
- New Zealand's Chemical Classification and Information Database (CCID)
- Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
- Organization for Economic Co-operation and Development High Production Volume Chemicals Program
- Organization for Economic Co-operation and Development Screening Information Data Set
- World Health Organization

Revision date 01-Feb-2024

**Revision Note**

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information



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relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**

# SAFETY DATA SHEET



Revision date 01-Feb-2024

Revision Number 1

## 1. Identification

### Product identifier

**Product Name** Semi-Moist Underglaze - Light Brown

### Other means of identification

**Product Code(s)** FG00719

**Synonyms** 41407C, 01686D

### Recommended use of the chemical and restrictions on use

**Recommended use**

**Restrictions on use**

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

American Art Clay Co Inc  
6060 Guion Road  
Indianapolis, IN 46254-1222 USA  
Toll Free: 1-800-999-5456  
CustomerCare@Amaco.com

### Emergency telephone number

**Emergency Telephone** U.S. Poison Control 1-800-222-1222

## 2. Hazard(s) identification

### Classification

Acute toxicity - Oral	Category 4
Specific target organ toxicity (repeated exposure)	Category 2

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

#### Hazard statements

Warning

H302 - Harmful if swallowed

H373 - May cause damage to organs through prolonged or repeated exposure



**Physical state** Solid

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Do not breathe dust/fume/gas/mist/vapors/spray

**Precautionary Statements - Response**

Get medical advice/attention if you feel unwell

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

Rinse mouth

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Unknown acute toxicity**

193.16 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

**Other information**

Harmful to aquatic life with long lasting effects. Toxic to aquatic life.

### 3. Composition/information on ingredients

Not applicable.

**Mixture**

Chemical name	CAS No	Weight-%
C.I. Pigment Brown 33	68186-88-9	20 - 40
Quartz	14808-60-7	5 - <10
Frits, chemicals	65997-18-4	5 - <10
Kaolin	1332-58-7	5 - <10
1,2,3-Propanetriol	56-81-5	1 - <3

### 4. First-aid measures

**Description of first aid measures**

**General advice**

Show this safety data sheet to the doctor in attendance.

**Inhalation**

Remove to fresh air.

**Eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

**Skin contact**

Wash skin with soap and water.

**Ingestion**

Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious

person. Call a physician.

#### **Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

#### **Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

### **5. Fire-fighting measures**

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

**Specific hazards arising from the chemical** No information available.

#### **Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

### **6. Accidental release measures**

#### **Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.

**Other information** Refer to protective measures listed in Sections 7 and 8.

#### **Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

### **7. Handling and storage**

#### **Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation.

#### **Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.

**8. Exposure controls/personal protection**

Control parameters

**Exposure Limits**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
C.I. Pigment Brown 33 68186-88-9	-	TWA: 0.5 mg/m <sup>3</sup> Cr (vacated) TWA: 0.5 mg/m <sup>3</sup> Cr	IDLH: 25 mg/m <sup>3</sup> Cr(III) TWA: 0.5 mg/m <sup>3</sup> Cr
Quartz 14808-60-7	TWA: 0.025 mg/m <sup>3</sup> respirable particulate matter	TWA: 50 µg/m <sup>3</sup> (vacated) TWA: 0.1 mg/m <sup>3</sup> respirable dust : (250)/(%SiO <sub>2</sub> + 5) mppcf TWA respirable fraction : (10)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA respirable fraction	IDLH: 50 mg/m <sup>3</sup> respirable dust TWA: 0.05 mg/m <sup>3</sup> respirable dust
Frits, chemicals 65997-18-4	STEL: 10 mg/m <sup>3</sup> Zr TWA: 0.01 mg/m <sup>3</sup> As TWA: 0.05 mg/m <sup>3</sup> Pb TWA: 0.01 mg/m <sup>3</sup> Cd TWA: 0.002 mg/m <sup>3</sup> Cd respirable particulate matter TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 1 mg/m <sup>3</sup> Cu dust and mist TWA: 3 mg/m <sup>3</sup> W respirable particulate matter in the absence of cobalt TWA: 5 mg/m <sup>3</sup> Zr TWA: 0.02 mg/m <sup>3</sup> Mn respirable particulate matter TWA: 0.1 mg/m <sup>3</sup> Mn inhalable particulate matter	TWA: 10 µg/m <sup>3</sup> As TWA: 50 µg/m <sup>3</sup> Pb TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 5 mg/m <sup>3</sup> Zr (vacated) TWA: 0.5 mg/m <sup>3</sup> Sb (vacated) TWA: 5 mg/m <sup>3</sup> Zr (vacated) STEL: 10 mg/m <sup>3</sup> Zr (vacated) Ceiling: 5 mg/m <sup>3</sup> Ceiling: 5 mg/m <sup>3</sup> Mn	IDLH: 5 mg/m <sup>3</sup> As IDLH: 9 mg/m <sup>3</sup> Cd dust and fume IDLH: 50 mg/m <sup>3</sup> Sb IDLH: 100 mg/m <sup>3</sup> Cu dust and mist IDLH: 500 mg/m <sup>3</sup> Mn IDLH: 25 mg/m <sup>3</sup> Zr IDLH: 100 mg/m <sup>3</sup> Pb IDLH: 10 mg/m <sup>3</sup> Ni Ceiling: 0.002 mg/m <sup>3</sup> As 15 min Ceiling: 0.05 mg/m <sup>3</sup> V dust and fume 15 min TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 1 mg/m <sup>3</sup> Cu dust and mist TWA: 1 mg/m <sup>3</sup> Mn TWA: 5 mg/m <sup>3</sup> except Zirconium tetrachloride Zr TWA: 0.050 mg/m <sup>3</sup> Pb TWA: 0.015 mg/m <sup>3</sup> except Nickel carbonyl Ni STEL: 3 mg/m <sup>3</sup> Mn STEL: 10 mg/m <sup>3</sup> Zr
Kaolin 1332-58-7	TWA: 2 mg/m <sup>3</sup> particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust
1,2,3-Propanetriol 56-81-5	-	TWA: 15 mg/m <sup>3</sup> mist, total particulate TWA: 5 mg/m <sup>3</sup> mist, respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> mist, total particulate (vacated) TWA: 5 mg/m <sup>3</sup> mist, respirable fraction	-

**Biological occupational exposure limits**

Chemical name	ACGIH
Frits, chemicals 65997-18-4	200 µg/L - blood (Lead) - not critical 5 µg/g creatinine - urine (Cadmium) - not critical

	5 µg/L - blood (Cadmium) - not critical
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**Appropriate engineering controls**

**Engineering controls**                      Showers  
    Eyewash stations  
    Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**                      No special protective equipment required.

**Skin and body protection**                No special protective equipment required.

**Respiratory protection**                  No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations**        Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and chemical properties**

Information on basic physical and chemical properties

**Physical state**                                Solid

**Appearance**

**Color**

**Odor**

**Odor threshold**

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	No data available	None known
<b>Melting point / freezing point</b>	No data available	None known
<b>Initial boiling point and boiling range</b>	No data available	None known
<b>Flash point</b>	No data available	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Relative vapor density</b>	No data available	None known
<b>Relative density</b>	No data available	None known
<b>Water solubility</b>	No data available	None known
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>		None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known

Other information

**Explosive properties**                      No information available

**Oxidizing properties**                    No information available

**VOC Content (%)**                         No information available

**10. Stability and reactivity**

**Reactivity**                                    No information available.

<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	None known based on information supplied.
<b>Incompatible materials</b>	None known based on information supplied.
<b>Hazardous decomposition products</b>	None known based on information supplied.

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Harmful if swallowed. (based on components).

### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

#### Acute toxicity

#### Numerical measures of toxicity

No information available

The following values are calculated based on chapter 3.1 of the GHS document

<b>ATEmix (oral)</b>	1,527.60 mg/kg
<b>ATEmix (dermal)</b>	21,753.30 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	20.80 mg/l

#### Unknown acute toxicity

193.16 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

#### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
C.I. Pigment Brown 33 68186-88-9	-	-	> 5.06 mg/L ( Rat ) 4 h
Frits, chemicals 65997-18-4	> 2000 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-
Kaolin 1332-58-7	> 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rat )	-
1,2,3-Propanetriol 56-81-5	= 12600 mg/kg ( Rat )	> 10 g/kg ( Rabbit )	> 2.75 mg/L ( Rat ) 4 h

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Skin corrosion/irritation** No information available.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
C.I. Pigment Brown 33 68186-88-9	-	Group 3	-	-
Quartz 14808-60-7	A2	Group 1	Known	X
Frits, chemicals 65997-18-4	A1 A3 A2	Group 1 Group 2B Group 2A	Known Reasonably Anticipated	X

**Legend**

**ACGIH (American Conference of Governmental Industrial Hygienists)**

- A1 - Known Human Carcinogen
- A2 - Suspected Human Carcinogen
- A3 - Animal Carcinogen

**IARC (International Agency for Research on Cancer)**

- Group 1 - Carcinogenic to Humans
- Group 2A - Probably Carcinogenic to Humans
- Group 2B - Possibly Carcinogenic to Humans
- Group 3 - Not Classifiable as to Carcinogenicity in Humans

**NTP (National Toxicology Program)**

- Known - Known Carcinogen
- Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

- X - Present

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Target organ effects** Liver, Kidney, Respiratory system, Eyes, Skin, Central nervous system, Blood, Central Vascular System (CVS), Lungs, Nasal Cavities, Lymphatic System, prostate, Gastrointestinal tract (GI).

**Aspiration hazard** No information available.

**Other adverse effects**

**Interactive effects**

**12. Ecological information**

**Ecotoxicity** Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
1,2,3-Propanetriol	-	LC50: 51 - 57mL/L (96h,	-	-



56-81-5		Oncorhynchus mykiss)		
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**Persistence and degradability**

**Bioaccumulation**

**Component Information**

Chemical name	Partition coefficient
1,2,3-Propanetriol 56-81-5	-1.76

**Other adverse effects** No information available.

**13. Disposal considerations**

**Disposal methods**

**Waste from residues/unused products** Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations.

**Contaminated packaging** Do not reuse empty containers.

**California Hazardous Waste Status** This product contains one or more substances that are listed with the State of California as a hazardous waste.

**14. Transport information**

**DOT** Not regulated

**15. Regulatory information**

**International Inventories**

**TSCA** Contact supplier for inventory compliance status.

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Corn syrup	8029-43-4	Present	Active
C.I. Pigment Brown 33	68186-88-9	Present	Active
Water	7732-18-5	Present	Active
Dextrin	9004-53-9	Present	Active
Feldspar	68476-25-5	Present	Active
Quartz	14808-60-7	Present	Active
Frits, chemicals	65997-18-4	Present	Active
Kaolin	1332-58-7	Present	Active
1,2,3-Propanetriol	56-81-5	Present	Active
Benzoic acid, 4-hydroxy-, methyl ester	99-76-3	Present	Active

**DSL/NDSL** Contact supplier for inventory compliance status.  
**EINECS/ELINCS** Contact supplier for inventory compliance status.  
**ENCS** Contact supplier for inventory compliance status.  
**IECSC** Contact supplier for inventory compliance status.  
**KECL** Contact supplier for inventory compliance status.  
**PICCS** Contact supplier for inventory compliance status.  
**AIIC** Contact supplier for inventory compliance status.  
**NZIoC** Contact supplier for inventory compliance status.

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AIIC** - Australian Inventory of Industrial Chemicals  
**NZIoC** - New Zealand Inventory of Chemicals

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
C.I. Pigment Brown 33 - 68186-88-9	1.0
Frits, chemicals - 65997-18-4	0.1
	1.0

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
C.I. Pigment Brown 33 68186-88-9	-	X	-	-
Frits, chemicals 65997-18-4	-	X	-	-

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**US State Regulations**

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
C.I. Pigment Brown 33	X	-	X

68186-88-9			
Water 7732-18-5	-	-	X
Feldspar 68476-25-5	X	-	X
Quartz 14808-60-7	X	X	X
Frits, chemicals 65997-18-4	X	-	X
Kaolin 1332-58-7	X	X	X
1,2,3-Propanetriol 56-81-5	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. Other information**

**NFPA** Health hazards 1 Flammability 0 Instability 0 Special hazards -  
**HMIS** Health hazards \*2 Flammability 0 Physical hazards 0 Personal protection X

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend Section 8: Exposure controls/personal protection**

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)  
 Ceiling Maximum limit value \* Skin designation

**Key literature references and sources for data used to compile the SDS**

- Agency for Toxic Substances and Disease Registry (ATSDR)
- U.S. Environmental Protection Agency ChemView Database
- European Food Safety Authority (EFSA)
- EPA (Environmental Protection Agency)
- Acute Exposure Guideline Level(s) (AEGl(s))
- U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
- U.S. Environmental Protection Agency High Production Volume Chemicals
- Food Research Journal
- Hazardous Substance Database
- International Uniform Chemical Information Database (IUCLID)
- National Institute of Technology and Evaluation (NITE)
- Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
- NIOSH (National Institute for Occupational Safety and Health)
- National Library of Medicine's ChemID Plus (NLM CIP)
- National Library of Medicine's PubMed database (NLM PUBMED)
- National Toxicology Program (NTP)
- New Zealand's Chemical Classification and Information Database (CCID)
- Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
- Organization for Economic Co-operation and Development High Production Volume Chemicals Program
- Organization for Economic Co-operation and Development Screening Information Data Set
- World Health Organization

Revision date 01-Feb-2024

**Revision Note**

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**

# SAFETY DATA SHEET



Revision date 01-Feb-2024

Revision Number 1

## 1. Identification

### Product identifier

**Product Name** Semi-Moist Underglaze - Light Yellow

### Other means of identification

**Product Code(s)** FG00721

**Synonyms** 41402W, 01687E

### Recommended use of the chemical and restrictions on use

**Recommended use**

**Restrictions on use**

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

American Art Clay Co Inc  
6060 Guion Road  
Indianapolis, IN 46254-1222 USA  
Toll Free: 1-800-999-5456  
CustomerCare@Amaco.com

### Emergency telephone number

**Emergency Telephone** U.S. Poison Control 1-800-222-1222

## 2. Hazard(s) identification

### Classification

Specific target organ toxicity (repeated exposure)	Category 2
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### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

#### **Hazard statements**

##### **Warning**

H373 - May cause damage to organs through prolonged or repeated exposure



**Physical state** Solid

**Precautionary Statements - Prevention**

Do not breathe dust/fume/gas/mist/vapors/spray

**Precautionary Statements - Response**

Get medical advice/attention if you feel unwell

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other information**

May be harmful if swallowed. Harmful to aquatic life with long lasting effects. Toxic to aquatic life.

### 3. Composition/information on ingredients

Not applicable.

**Mixture**

Chemical name	CAS No	Weight-%
C.I. Pigment Yellow 159	68187-15-5	40 - 60
Quartz	14808-60-7	3 - <5
Kaolin	1332-58-7	3 - <5
Frits, chemicals	65997-18-4	3 - <5
1,2,3-Propanetriol	56-81-5	1 - <3

### 4. First-aid measures

**Description of first aid measures**

<b>General advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Inhalation</b>	Remove to fresh air.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Ingestion</b>	Rinse mouth.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**5. Fire-fighting measures**

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

**Specific hazards arising from the chemical** No information available.

**Explosion data**  
**Sensitivity to mechanical impact** None.  
**Sensitivity to static discharge** None.

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**6. Accidental release measures**

Personal precautions, protective equipment and emergency procedures

**Personal precautions** Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.

**Other information** Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

**7. Handling and storage**

Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place.

**8. Exposure controls/personal protection**

Control parameters

**Exposure Limits**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
C.I. Pigment Yellow 159 68187-15-5	STEL: 10 mg/m <sup>3</sup> Zr TWA: 5 mg/m <sup>3</sup> Zr	TWA: 5 mg/m <sup>3</sup> Zr (vacated) TWA: 5 mg/m <sup>3</sup> Zr	IDLH: 25 mg/m <sup>3</sup> Zr TWA: 5 mg/m <sup>3</sup> except Zirconium

		(vacated) STEL: 10 mg/m <sup>3</sup> Zr	tetrachloride Zr STEL: 10 mg/m <sup>3</sup> Zr
Quartz 14808-60-7	TWA: 0.025 mg/m <sup>3</sup> respirable particulate matter	TWA: 50 µg/m <sup>3</sup> (vacated) TWA: 0.1 mg/m <sup>3</sup> respirable dust : (250)/(%SiO <sub>2</sub> + 5) mppcf TWA respirable fraction : (10)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA respirable fraction	IDLH: 50 mg/m <sup>3</sup> respirable dust TWA: 0.05 mg/m <sup>3</sup> respirable dust
Kaolin 1332-58-7	TWA: 2 mg/m <sup>3</sup> particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust
Frits, chemicals 65997-18-4	STEL: 10 mg/m <sup>3</sup> Zr TWA: 0.01 mg/m <sup>3</sup> As TWA: 0.05 mg/m <sup>3</sup> Pb TWA: 0.01 mg/m <sup>3</sup> Cd TWA: 0.002 mg/m <sup>3</sup> Cd respirable particulate matter TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 1 mg/m <sup>3</sup> Cu dust and mist TWA: 3 mg/m <sup>3</sup> W respirable particulate matter in the absence of cobalt TWA: 5 mg/m <sup>3</sup> Zr TWA: 0.02 mg/m <sup>3</sup> Mn respirable particulate matter TWA: 0.1 mg/m <sup>3</sup> Mn inhalable particulate matter	TWA: 10 µg/m <sup>3</sup> As TWA: 50 µg/m <sup>3</sup> Pb TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 5 mg/m <sup>3</sup> Zr (vacated) TWA: 0.5 mg/m <sup>3</sup> Sb (vacated) TWA: 5 mg/m <sup>3</sup> Zr (vacated) STEL: 10 mg/m <sup>3</sup> Zr (vacated) Ceiling: 5 mg/m <sup>3</sup> Ceiling: 5 mg/m <sup>3</sup> Mn	IDLH: 5 mg/m <sup>3</sup> As IDLH: 9 mg/m <sup>3</sup> Cd dust and fume IDLH: 50 mg/m <sup>3</sup> Sb IDLH: 100 mg/m <sup>3</sup> Cu dust and mist IDLH: 500 mg/m <sup>3</sup> Mn IDLH: 25 mg/m <sup>3</sup> Zr IDLH: 100 mg/m <sup>3</sup> Pb IDLH: 10 mg/m <sup>3</sup> Ni Ceiling: 0.002 mg/m <sup>3</sup> As 15 min Ceiling: 0.05 mg/m <sup>3</sup> V dust and fume 15 min TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 1 mg/m <sup>3</sup> Cu dust and mist TWA: 1 mg/m <sup>3</sup> Mn TWA: 5 mg/m <sup>3</sup> except Zirconium tetrachloride Zr TWA: 0.050 mg/m <sup>3</sup> Pb TWA: 0.015 mg/m <sup>3</sup> except Nickel carbonyl Ni STEL: 3 mg/m <sup>3</sup> Mn STEL: 10 mg/m <sup>3</sup> Zr
1,2,3-Propanetriol 56-81-5	-	TWA: 15 mg/m <sup>3</sup> mist, total particulate TWA: 5 mg/m <sup>3</sup> mist, respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> mist, total particulate (vacated) TWA: 5 mg/m <sup>3</sup> mist, respirable fraction	-

**Biological occupational exposure limits**

Chemical name	ACGIH
Frits, chemicals 65997-18-4	200 µg/L - blood (Lead) - not critical 5 µg/g creatinine - urine (Cadmium) - not critical 5 µg/L - blood (Cadmium) - not critical

**Appropriate engineering controls**

**Engineering controls**                      Showers  
    Eyewash stations  
    Ventilation systems.

**Individual protection measures, such as personal protective equipment**

<b>Eye/face protection</b>	No special protective equipment required.
<b>Skin and body protection</b>	No special protective equipment required.
<b>Respiratory protection</b>	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

<b>Physical state</b>	Solid
<b>Appearance</b>	
<b>Color</b>	
<b>Odor</b>	
<b>Odor threshold</b>	

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	No data available	None known
<b>Melting point / freezing point</b>	No data available	None known
<b>Initial boiling point and boiling range</b>	No data available	None known
<b>Flash point</b>	No data available	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Relative vapor density</b>	No data available	None known
<b>Relative density</b>	No data available	None known
<b>Water solubility</b>	No data available	None known
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>		None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known

### Other information

<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	No information available
<b>VOC Content (%)</b>	No information available

## 10. Stability and reactivity

<b>Reactivity</b>	No information available.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	None known based on information supplied.
<b>Incompatible materials</b>	None known based on information supplied.
<b>Hazardous decomposition products</b>	None known based on information supplied.



## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	May be harmful if swallowed.

### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

### Acute toxicity

#### Numerical measures of toxicity

No information available

The following values are calculated based on chapter 3.1 of the GHS document

<b>ATEmix (oral)</b>	2,222.70 mg/kg
<b>ATEmix (dermal)</b>	31,055.90 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	29.00 mg/l

### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
C.I. Pigment Yellow 159 68187-15-5	-	-	> 5.5 mg/L ( Rat ) 4 h
Kaolin 1332-58-7	> 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rat )	-
Frits, chemicals 65997-18-4	> 2000 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-
1,2,3-Propanetriol 56-81-5	= 12600 mg/kg ( Rat )	> 10 g/kg ( Rabbit )	> 2.75 mg/L ( Rat ) 4 h

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Skin corrosion/irritation** No information available.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Quartz 14808-60-7	A2	Group 1	Known	X
Frits, chemicals 65997-18-4	A1 A3 A2	Group 1 Group 2B Group 2A	Known Reasonably Anticipated	X

**Legend**

**ACGIH (American Conference of Governmental Industrial Hygienists)**

- A1 - Known Human Carcinogen
- A2 - Suspected Human Carcinogen
- A3 - Animal Carcinogen

**IARC (International Agency for Research on Cancer)**

- Group 1 - Carcinogenic to Humans
- Group 2A - Probably Carcinogenic to Humans
- Group 2B - Possibly Carcinogenic to Humans

**NTP (National Toxicology Program)**

- Known - Known Carcinogen
- Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

- X - Present

<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	May cause damage to organs through prolonged or repeated exposure.
<b>Target organ effects</b>	Liver, Kidney, Respiratory system, Eyes, Skin, Central nervous system, Blood, Central Vascular System (CVS), Lungs, Nasal Cavities, Lymphatic System, prostate, Gastrointestinal tract (GI).
<b>Aspiration hazard</b>	No information available.
<b>Other adverse effects</b>	
<b>Interactive effects</b>	

**12. Ecological information**

**Ecotoxicity** Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
1,2,3-Propanetriol 56-81-5	-	LC50: 51 - 57mL/L (96h, Oncorhynchus mykiss)	-	-

**Persistence and degradability**

**Bioaccumulation**

**Component Information**

Chemical name	Partition coefficient
1,2,3-Propanetriol 56-81-5	-1.76

**Other adverse effects** No information available.

**13. Disposal considerations****Disposal methods**

<b>Waste from residues/unused products</b>	Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations.
<b>Contaminated packaging</b>	Do not reuse empty containers.
<b>California Hazardous Waste Status</b>	This product contains one or more substances that are listed with the State of California as a hazardous waste.

**14. Transport information**

**DOT** Not regulated

**15. Regulatory information****International Inventories**

**TSCA** Contact supplier for inventory compliance status.

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Corn syrup	8029-43-4	Present	Active
C.I. Pigment Yellow 159	68187-15-5	Present	Active
Water	7732-18-5	Present	Active
Dextrin	9004-53-9	Present	Active
Frits, chemicals	65997-18-4	Present	Active
Feldspar	68476-25-5	Present	Active
Kaolin	1332-58-7	Present	Active
Quartz	14808-60-7	Present	Active
1,2,3-Propanetriol	56-81-5	Present	Active
Benzoic acid, 4-hydroxy-, methyl ester	99-76-3	Present	Active

<b>DSL/NDSL</b>	Contact supplier for inventory compliance status.
<b>EINECS/ELINCS</b>	Contact supplier for inventory compliance status.
<b>ENCS</b>	Contact supplier for inventory compliance status.
<b>IECSC</b>	Contact supplier for inventory compliance status.
<b>KECL</b>	Contact supplier for inventory compliance status.
<b>PICCS</b>	Contact supplier for inventory compliance status.
<b>AIIC</b>	Contact supplier for inventory compliance status.
<b>NZIoC</b>	Contact supplier for inventory compliance status.

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AIIC** - Australian Inventory of Industrial Chemicals  
**NZIoC** - New Zealand Inventory of Chemicals

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
Frits, chemicals - 65997-18-4	0.1 1.0

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Frits, chemicals 65997-18-4	-	X	-	-

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**US State Regulations**

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
Frits, chemicals 65997-18-4	X	-	X
Feldspar 68476-25-5	X	-	X
Kaolin 1332-58-7	X	X	X
Quartz 14808-60-7	X	X	X
1,2,3-Propanetriol 56-81-5	X	X	X

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

**16. Other information**

<b>NFPA</b>	<b>Health hazards</b> 1	<b>Flammability</b> 0	<b>Instability</b> 0	<b>Special hazards</b> -
<b>HMIS</b>	<b>Health hazards</b> * 2 1	<b>Flammability</b> 0	<b>Physical hazards</b> 0	<b>Personal protection</b> X

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: Exposure controls/personal protection**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AEGl(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 National Institute of Technology and Evaluation (NITE)  
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Library of Medicine's PubMed database (NLM PUBMED)  
 National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)  
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
 Organization for Economic Co-operation and Development Screening Information Data Set  
 World Health Organization

**Revision date** 01-Feb-2024

**Revision Note****Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**

# SAFETY DATA SHEET



Revision date 01-Feb-2024

Revision Number 1

## 1. Identification

### Product identifier

**Product Name** Semi-Moist Underglaze - Maroon

### Other means of identification

**Product Code(s)** FG00724

**Synonyms** 41401H, 01689G

### Recommended use of the chemical and restrictions on use

**Recommended use**

**Restrictions on use**

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

American Art Clay Co Inc  
6060 Guion Road  
Indianapolis, IN 46254-1222 USA  
Toll Free: 1-800-999-5456  
CustomerCare@Amaco.com

### Emergency telephone number

**Emergency Telephone** U.S. Poison Control 1-800-222-1222

## 2. Hazard(s) identification

### Classification

Acute toxicity - Oral	Category 4
Specific target organ toxicity (repeated exposure)	Category 2

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

#### Hazard statements

Warning

H302 - Harmful if swallowed

H373 - May cause damage to organs through prolonged or repeated exposure

**Physical state** Solid**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Do not breathe dust/fume/gas/mist/vapors/spray

**Precautionary Statements - Response**

Get medical advice/attention if you feel unwell

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

Rinse mouth

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Unknown acute toxicity**

171.65 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

**Other information**

Harmful to aquatic life with long lasting effects. Toxic to aquatic life.

### 3. Composition/information on ingredients

Not applicable.

**Mixture**

Chemical name	CAS No	Weight-%
C.I. Pigment Red 233	68187-12-2	20 - 40
Quartz	14808-60-7	5 - <10
Kaolin	1332-58-7	5 - <10
Frits, chemicals	65997-18-4	5 - <10
1,2,3-Propanetriol	56-81-5	1 - <3

### 4. First-aid measures

**Description of first aid measures****General advice**

Show this safety data sheet to the doctor in attendance.

**Inhalation**

Remove to fresh air.

**Eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

**Skin contact**

Wash skin with soap and water.

**Ingestion**

Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious

---

person. Call a physician.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**5. Fire-fighting measures**

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

**Specific hazards arising from the chemical** No information available.

**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.

**Other information** Refer to protective measures listed in Sections 7 and 8.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

**7. Handling and storage****Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.



**8. Exposure controls/personal protection**

Control parameters

**Exposure Limits**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
C.I. Pigment Red 233 68187-12-2	-	TWA: 0.5 mg/m <sup>3</sup> Cr (vacated) TWA: 0.5 mg/m <sup>3</sup> Cr	IDLH: 25 mg/m <sup>3</sup> Cr(III) TWA: 0.5 mg/m <sup>3</sup> Cr
Quartz 14808-60-7	TWA: 0.025 mg/m <sup>3</sup> respirable particulate matter	TWA: 50 µg/m <sup>3</sup> (vacated) TWA: 0.1 mg/m <sup>3</sup> respirable dust : (250)/(%SiO <sub>2</sub> + 5) mppcf TWA respirable fraction : (10)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA respirable fraction	IDLH: 50 mg/m <sup>3</sup> respirable dust TWA: 0.05 mg/m <sup>3</sup> respirable dust
Kaolin 1332-58-7	TWA: 2 mg/m <sup>3</sup> particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust
Frits, chemicals 65997-18-4	STEL: 10 mg/m <sup>3</sup> Zr TWA: 0.01 mg/m <sup>3</sup> As TWA: 0.05 mg/m <sup>3</sup> Pb TWA: 0.01 mg/m <sup>3</sup> Cd TWA: 0.002 mg/m <sup>3</sup> Cd respirable particulate matter TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 1 mg/m <sup>3</sup> Cu dust and mist TWA: 3 mg/m <sup>3</sup> W respirable particulate matter in the absence of cobalt TWA: 5 mg/m <sup>3</sup> Zr TWA: 0.02 mg/m <sup>3</sup> Mn respirable particulate matter TWA: 0.1 mg/m <sup>3</sup> Mn inhalable particulate matter	TWA: 10 µg/m <sup>3</sup> As TWA: 50 µg/m <sup>3</sup> Pb TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 5 mg/m <sup>3</sup> Zr (vacated) TWA: 0.5 mg/m <sup>3</sup> Sb (vacated) TWA: 5 mg/m <sup>3</sup> Zr (vacated) STEL: 10 mg/m <sup>3</sup> Zr (vacated) Ceiling: 5 mg/m <sup>3</sup> Ceiling: 5 mg/m <sup>3</sup> Mn	IDLH: 5 mg/m <sup>3</sup> As IDLH: 9 mg/m <sup>3</sup> Cd dust and fume IDLH: 50 mg/m <sup>3</sup> Sb IDLH: 100 mg/m <sup>3</sup> Cu dust and mist IDLH: 500 mg/m <sup>3</sup> Mn IDLH: 25 mg/m <sup>3</sup> Zr IDLH: 100 mg/m <sup>3</sup> Pb IDLH: 10 mg/m <sup>3</sup> Ni Ceiling: 0.002 mg/m <sup>3</sup> As 15 min Ceiling: 0.05 mg/m <sup>3</sup> V dust and fume 15 min TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 1 mg/m <sup>3</sup> Cu dust and mist TWA: 1 mg/m <sup>3</sup> Mn TWA: 5 mg/m <sup>3</sup> except Zirconium tetrachloride Zr TWA: 0.050 mg/m <sup>3</sup> Pb TWA: 0.015 mg/m <sup>3</sup> except Nickel carbonyl Ni STEL: 3 mg/m <sup>3</sup> Mn STEL: 10 mg/m <sup>3</sup> Zr
1,2,3-Propanetriol 56-81-5	-	TWA: 15 mg/m <sup>3</sup> mist, total particulate TWA: 5 mg/m <sup>3</sup> mist, respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> mist, total particulate (vacated) TWA: 5 mg/m <sup>3</sup> mist, respirable fraction	-

**Biological occupational exposure limits**

Chemical name	ACGIH
Frits, chemicals 65997-18-4	200 µg/L - blood (Lead) - not critical 5 µg/g creatinine - urine (Cadmium) - not critical

5 µg/L - blood (Cadmium) - not critical

**Appropriate engineering controls**

**Engineering controls**                      Showers  
 Eyewash stations  
 Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**                      No special protective equipment required.

**Skin and body protection**                No special protective equipment required.

**Respiratory protection**                    No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations**        Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and chemical properties****Information on basic physical and chemical properties**

**Physical state**                                Solid

**Appearance**

**Color**

**Odor**

**Odor threshold**

<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>
<b>pH</b>	No data available	None known
<b>Melting point / freezing point</b>	No data available	None known
<b>Initial boiling point and boiling range</b>	No data available	None known
<b>Flash point</b>	No data available	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Relative vapor density</b>	No data available	None known
<b>Relative density</b>	No data available	None known
<b>Water solubility</b>	No data available	None known
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>		None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known

**Other information**

**Explosive properties**                      No information available

**Oxidizing properties**                      No information available

**VOC Content (%)**                            No information available

**10. Stability and reactivity**

**Reactivity**                                  No information available.

<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	None known based on information supplied.
<b>Incompatible materials</b>	None known based on information supplied.
<b>Hazardous decomposition products</b>	None known based on information supplied.

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Harmful if swallowed. (based on components).

### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

#### Acute toxicity

#### Numerical measures of toxicity

No information available

The following values are calculated based on chapter 3.1 of the GHS document

<b>ATEmix (oral)</b>	1,841.40 mg/kg
<b>ATEmix (dermal)</b>	25,726.80 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	24.90 mg/l

#### Unknown acute toxicity

171.65 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

#### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
C.I. Pigment Red 233 68187-12-2	-	-	> 5.4 mg/L ( Rat ) 4 h
Kaolin 1332-58-7	> 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rat )	-
Frits, chemicals 65997-18-4	> 2000 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-
1,2,3-Propanetriol 56-81-5	= 12600 mg/kg ( Rat )	> 10 g/kg ( Rabbit )	> 2.75 mg/L ( Rat ) 4 h

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Skin corrosion/irritation** No information available.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
C.I. Pigment Red 233 68187-12-2	-	Group 3	-	-
Quartz 14808-60-7	A2	Group 1	Known	X
Frits, chemicals 65997-18-4	A1 A3 A2	Group 1 Group 2B Group 2A	Known Reasonably Anticipated	X

**Legend**

**ACGIH (American Conference of Governmental Industrial Hygienists)**

- A1 - Known Human Carcinogen
- A2 - Suspected Human Carcinogen
- A3 - Animal Carcinogen

**IARC (International Agency for Research on Cancer)**

- Group 1 - Carcinogenic to Humans
- Group 2A - Probably Carcinogenic to Humans
- Group 2B - Possibly Carcinogenic to Humans
- Group 3 - Not Classifiable as to Carcinogenicity in Humans

**NTP (National Toxicology Program)**

- Known - Known Carcinogen
- Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

- X - Present

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Target organ effects** Liver, Kidney, Respiratory system, Eyes, Skin, Central nervous system, Blood, Central Vascular System (CVS), Lungs, Nasal Cavities, Lymphatic System, prostate, Gastrointestinal tract (GI).

**Aspiration hazard** No information available.

**Other adverse effects**

**Interactive effects**

**12. Ecological information**

**Ecotoxicity** Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
1,2,3-Propanetriol	-	LC50: 51 - 57mL/L (96h,	-	-

56-81-5		Oncorhynchus mykiss)		
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**Persistence and degradability**

**Bioaccumulation**

**Component Information**

Chemical name	Partition coefficient
1,2,3-Propanetriol 56-81-5	-1.76

**Other adverse effects** No information available.

**13. Disposal considerations**

**Disposal methods**

**Waste from residues/unused products** Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations.

**Contaminated packaging** Do not reuse empty containers.

**California Hazardous Waste Status** This product contains one or more substances that are listed with the State of California as a hazardous waste.

**14. Transport information**

**DOT** Not regulated

**15. Regulatory information**

**International Inventories**

**TSCA** Contact supplier for inventory compliance status.

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Corn syrup	8029-43-4	Present	Active
C.I. Pigment Red 233	68187-12-2	Present	Active
Water	7732-18-5	Present	Active
Dextrin	9004-53-9	Present	Active
Feldspar	68476-25-5	Present	Active
Kaolin	1332-58-7	Present	Active
Quartz	14808-60-7	Present	Active
Frits, chemicals	65997-18-4	Present	Active
1,2,3-Propanetriol	56-81-5	Present	Active
Benzoic acid, 4-hydroxy-, methyl ester	99-76-3	Present	Active

**DSL/NDSL** Contact supplier for inventory compliance status.  
**EINECS/ELINCS** Contact supplier for inventory compliance status.  
**ENCS** Contact supplier for inventory compliance status.  
**IECSC** Contact supplier for inventory compliance status.  
**KECL** Contact supplier for inventory compliance status.  
**PICCS** Contact supplier for inventory compliance status.  
**AIIC** Contact supplier for inventory compliance status.  
**NZIoC** Contact supplier for inventory compliance status.

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AIIC** - Australian Inventory of Industrial Chemicals  
**NZIoC** - New Zealand Inventory of Chemicals

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
C.I. Pigment Red 233 - 68187-12-2	1.0
Frits, chemicals - 65997-18-4	0.1
	1.0

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
C.I. Pigment Red 233 68187-12-2	-	X	-	-
Frits, chemicals 65997-18-4	-	X	-	-

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**US State Regulations**

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
C.I. Pigment Red 233	X	-	X

68187-12-2			
Water 7732-18-5	-	-	X
Feldspar 68476-25-5	X	-	X
Kaolin 1332-58-7	X	X	X
Quartz 14808-60-7	X	X	X
Frits, chemicals 65997-18-4	X	-	X
1,2,3-Propanetriol 56-81-5	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. Other information**

**NFPA** Health hazards 1 Flammability 0 Instability 0 Special hazards -  
**HMIS** Health hazards \*2 Flammability 0 Physical hazards 0 Personal protection X

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend Section 8: Exposure controls/personal protection**

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)  
 Ceiling Maximum limit value \* Skin designation

**Key literature references and sources for data used to compile the SDS**

- Agency for Toxic Substances and Disease Registry (ATSDR)
- U.S. Environmental Protection Agency ChemView Database
- European Food Safety Authority (EFSA)
- EPA (Environmental Protection Agency)
- Acute Exposure Guideline Level(s) (AEGl(s))
- U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
- U.S. Environmental Protection Agency High Production Volume Chemicals
- Food Research Journal
- Hazardous Substance Database
- International Uniform Chemical Information Database (IUCLID)
- National Institute of Technology and Evaluation (NITE)
- Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
- NIOSH (National Institute for Occupational Safety and Health)
- National Library of Medicine's ChemID Plus (NLM CIP)
- National Library of Medicine's PubMed database (NLM PUBMED)
- National Toxicology Program (NTP)
- New Zealand's Chemical Classification and Information Database (CCID)
- Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
- Organization for Economic Co-operation and Development High Production Volume Chemicals Program
- Organization for Economic Co-operation and Development Screening Information Data Set
- World Health Organization

Revision date 01-Feb-2024

**Revision Note**

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

# SAFETY DATA SHEET



Revision date 01-Feb-2024

Revision Number 1

## 1. Identification

### Product identifier

**Product Name** Semi-Moist Underglaze - White

### Other means of identification

**Product Code(s)** FG00743

**Synonyms** 41408D, 01699T

### Recommended use of the chemical and restrictions on use

**Recommended use**

**Restrictions on use**

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

American Art Clay Co Inc  
6060 Guion Road  
Indianapolis, IN 46254-1222 USA  
Toll Free: 1-800-999-5456  
CustomerCare@Amaco.com

### Emergency telephone number

**Emergency Telephone** U.S. Poison Control 1-800-222-1222

## 2. Hazard(s) identification

### Classification

Specific target organ toxicity (repeated exposure)

Category 2

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

#### **Hazard statements**

##### **Warning**

H373 - May cause damage to organs through prolonged or repeated exposure





**Physical state** Solid

**Precautionary Statements - Prevention**

Do not breathe dust/fume/gas/mist/vapors/spray

**Precautionary Statements - Response**

Get medical advice/attention if you feel unwell

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other information**

May be harmful if swallowed. Harmful to aquatic life with long lasting effects. Toxic to aquatic life.

### 3. Composition/information on ingredients

Not applicable.

**Mixture**

Chemical name	CAS No	Weight-%
Silicic acid (H <sub>4</sub> SiO <sub>4</sub> ), zirconium(4+) salt (1:1)	10101-52-7	40 - 60
Quartz	14808-60-7	3 - <5
Kaolin	1332-58-7	3 - <5
Frits, chemicals	65997-18-4	3 - <5
1,2,3-Propanetriol	56-81-5	1 - <3

### 4. First-aid measures

**Description of first aid measures**

<b>General advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Inhalation</b>	Remove to fresh air.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Ingestion</b>	Rinse mouth.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

## 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Large Fire</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
<b>Specific hazards arising from the chemical</b>	No information available.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	None.
<b>Sensitivity to static discharge</b>	None.
<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.
<b>Other information</b>	Refer to protective measures listed in Sections 7 and 8.

### Methods and material for containment and cleaning up

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Pick up and transfer to properly labeled containers.

## 7. Handling and storage

### Precautions for safe handling

<b>Advice on safe handling</b>	Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation.
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### Conditions for safe storage, including any incompatibilities

<b>Storage Conditions</b>	Keep container tightly closed in a dry and well-ventilated place.
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## 8. Exposure controls/personal protection

### Control parameters

#### Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Silicic acid (H <sub>4</sub> SiO <sub>4</sub> ), zirconium(4+) salt (1:1)	STEL: 10 mg/m <sup>3</sup> Zr TWA: 5 mg/m <sup>3</sup> Zr	TWA: 5 mg/m <sup>3</sup> Zr (vacated) TWA: 5 mg/m <sup>3</sup> Zr	IDLH: 25 mg/m <sup>3</sup> Zr TWA: 5 mg/m <sup>3</sup> except Zirconium

10101-52-7		(vacated) STEL: 10 mg/m <sup>3</sup> Zr	tetrachloride Zr STEL: 10 mg/m <sup>3</sup> Zr
Quartz 14808-60-7	TWA: 0.025 mg/m <sup>3</sup> respirable particulate matter	TWA: 50 µg/m <sup>3</sup> (vacated) TWA: 0.1 mg/m <sup>3</sup> respirable dust : (250)/(%SiO <sub>2</sub> + 5) mppcf TWA respirable fraction : (10)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA respirable fraction	IDLH: 50 mg/m <sup>3</sup> respirable dust TWA: 0.05 mg/m <sup>3</sup> respirable dust
Kaolin 1332-58-7	TWA: 2 mg/m <sup>3</sup> particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust
Frits, chemicals 65997-18-4	STEL: 10 mg/m <sup>3</sup> Zr TWA: 0.01 mg/m <sup>3</sup> As TWA: 0.05 mg/m <sup>3</sup> Pb TWA: 0.01 mg/m <sup>3</sup> Cd TWA: 0.002 mg/m <sup>3</sup> Cd respirable particulate matter TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 1 mg/m <sup>3</sup> Cu dust and mist TWA: 3 mg/m <sup>3</sup> W respirable particulate matter in the absence of cobalt TWA: 5 mg/m <sup>3</sup> Zr TWA: 0.02 mg/m <sup>3</sup> Mn respirable particulate matter TWA: 0.1 mg/m <sup>3</sup> Mn inhalable particulate matter	TWA: 10 µg/m <sup>3</sup> As TWA: 50 µg/m <sup>3</sup> Pb TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 5 mg/m <sup>3</sup> Zr (vacated) TWA: 0.5 mg/m <sup>3</sup> Sb (vacated) TWA: 5 mg/m <sup>3</sup> Zr (vacated) STEL: 10 mg/m <sup>3</sup> Zr (vacated) Ceiling: 5 mg/m <sup>3</sup> Ceiling: 5 mg/m <sup>3</sup> Mn	IDLH: 5 mg/m <sup>3</sup> As IDLH: 9 mg/m <sup>3</sup> Cd dust and fume IDLH: 50 mg/m <sup>3</sup> Sb IDLH: 100 mg/m <sup>3</sup> Cu dust and mist IDLH: 500 mg/m <sup>3</sup> Mn IDLH: 25 mg/m <sup>3</sup> Zr IDLH: 100 mg/m <sup>3</sup> Pb IDLH: 10 mg/m <sup>3</sup> Ni Ceiling: 0.002 mg/m <sup>3</sup> As 15 min Ceiling: 0.05 mg/m <sup>3</sup> V dust and fume 15 min TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 1 mg/m <sup>3</sup> Cu dust and mist TWA: 1 mg/m <sup>3</sup> Mn TWA: 5 mg/m <sup>3</sup> except Zirconium tetrachloride Zr TWA: 0.050 mg/m <sup>3</sup> Pb TWA: 0.015 mg/m <sup>3</sup> except Nickel carbonyl Ni STEL: 3 mg/m <sup>3</sup> Mn STEL: 10 mg/m <sup>3</sup> Zr
1,2,3-Propanetriol 56-81-5	-	TWA: 15 mg/m <sup>3</sup> mist, total particulate TWA: 5 mg/m <sup>3</sup> mist, respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> mist, total particulate (vacated) TWA: 5 mg/m <sup>3</sup> mist, respirable fraction	-

**Biological occupational exposure limits**

Chemical name	ACGIH
Frits, chemicals 65997-18-4	200 µg/L - blood (Lead) - not critical 5 µg/g creatinine - urine (Cadmium) - not critical 5 µg/L - blood (Cadmium) - not critical

**Appropriate engineering controls**

**Engineering controls**                      Showers  
    Eyewash stations  
    Ventilation systems.

**Individual protection measures, such as personal protective equipment**

<b>Eye/face protection</b>	No special protective equipment required.
<b>Skin and body protection</b>	No special protective equipment required.
<b>Respiratory protection</b>	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

<b>Physical state</b>	Solid
<b>Appearance</b>	
<b>Color</b>	
<b>Odor</b>	
<b>Odor threshold</b>	

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	No data available	None known
<b>Melting point / freezing point</b>	No data available	None known
<b>Initial boiling point and boiling range</b>	No data available	None known
<b>Flash point</b>	No data available	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Relative vapor density</b>	No data available	None known
<b>Relative density</b>	No data available	None known
<b>Water solubility</b>	No data available	None known
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>		None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known

### Other information

<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	No information available
<b>VOC Content (%)</b>	No information available

## 10. Stability and reactivity

<b>Reactivity</b>	No information available.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	None known based on information supplied.
<b>Incompatible materials</b>	None known based on information supplied.
<b>Hazardous decomposition products</b>	None known based on information supplied.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	May be harmful if swallowed.

### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

### Acute toxicity

#### Numerical measures of toxicity

No information available

The following values are calculated based on chapter 3.1 of the GHS document

<b>ATEmix (oral)</b>	2,271.70 mg/kg
<b>ATEmix (dermal)</b>	31,250.00 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	29.30 mg/l

### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Kaolin 1332-58-7	> 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rat )	-
Frits, chemicals 65997-18-4	> 2000 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-
1,2,3-Propanetriol 56-81-5	= 12600 mg/kg ( Rat )	> 10 g/kg ( Rabbit )	> 2.75 mg/L ( Rat ) 4 h

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Skin corrosion/irritation** No information available.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Quartz 14808-60-7	A2	Group 1	Known	X
Frits, chemicals 65997-18-4	A1 A3 A2	Group 1 Group 2B Group 2A	Known Reasonably Anticipated	X

### Legend

**ACGIH (American Conference of Governmental Industrial Hygienists)**

A1 - Known Human Carcinogen  
 A2 - Suspected Human Carcinogen  
 A3 - Animal Carcinogen  
**IARC (International Agency for Research on Cancer)**  
 Group 1 - Carcinogenic to Humans  
 Group 2A - Probably Carcinogenic to Humans  
 Group 2B - Possibly Carcinogenic to Humans  
**NTP (National Toxicology Program)**  
 Known - Known Carcinogen  
 Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen  
**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**  
 X - Present

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Target organ effects** Liver, Kidney, Respiratory system, Eyes, Skin, Central nervous system, Blood, Central Vascular System (CVS), Lungs, Nasal Cavities, Lymphatic System, prostate, Gastrointestinal tract (GI).

**Aspiration hazard** No information available.

**Other adverse effects**

**Interactive effects**

**12. Ecological information**

**Ecotoxicity** Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
1,2,3-Propanetriol 56-81-5	-	LC50: 51 - 57mL/L (96h, Oncorhynchus mykiss)	-	-

**Persistence and degradability**

**Bioaccumulation**

**Component Information**

Chemical name	Partition coefficient
1,2,3-Propanetriol 56-81-5	-1.76

**Other adverse effects** No information available.

**13. Disposal considerations**

**Disposal methods**

**Waste from residues/unused products** Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations.

**Contaminated packaging** Do not reuse empty containers.

**California Hazardous Waste Status** This product contains one or more substances that are listed with the State of California as a hazardous waste.

**14. Transport information**

**DOT** Not regulated

**15. Regulatory information**

**International Inventories**

**TSCA** Contact supplier for inventory compliance status.

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Corn syrup	8029-43-4	Present	Active
Silicic acid (H4SiO4), zirconium(4+) salt (1:1)	10101-52-7	Present	Active
Water	7732-18-5	Present	Active
Dextrin	9004-53-9	Present	Active
Feldspar	68476-25-5	Present	Active
Kaolin	1332-58-7	Present	Active
Quartz	14808-60-7	Present	Active
Frits, chemicals	65997-18-4	Present	Active
1,2,3-Propanetriol	56-81-5	Present	Active
Benzoic acid, 4-hydroxy-, methyl ester	99-76-3	Present	Active

**DSL/NDSL** Contact supplier for inventory compliance status.

**EINECS/ELINCS** Contact supplier for inventory compliance status.

**ENCS** Contact supplier for inventory compliance status.

**IECSC** Contact supplier for inventory compliance status.

**KECL** Contact supplier for inventory compliance status.

**PICCS** Contact supplier for inventory compliance status.

**AIIC** Contact supplier for inventory compliance status.

**NZIoC** Contact supplier for inventory compliance status.

**Legend:**  
**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AIIC** - Australian Inventory of Industrial Chemicals  
**NZIoC** - New Zealand Inventory of Chemicals

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
Frits, chemicals - 65997-18-4	0.1 1.0

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Frits, chemicals 65997-18-4	-	X	-	-

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**US State Regulations**

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
Feldspar 68476-25-5	X	-	X
Kaolin 1332-58-7	X	X	X
Quartz 14808-60-7	X	X	X
Frits, chemicals 65997-18-4	X	-	X
1,2,3-Propanetriol 56-81-5	X	X	X

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

**16. Other information**



<b>NFPA</b>	<b>Health hazards</b> 1	<b>Flammability</b> 0	<b>Instability</b> 0	<b>Special hazards</b> -
<b>HMIS</b>	<b>Health hazards</b> * 2 1	<b>Flammability</b> 0	<b>Physical hazards</b> 0	<b>Personal protection</b> X

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: Exposure controls/personal protection**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AEGl(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 National Institute of Technology and Evaluation (NITE)  
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Library of Medicine's PubMed database (NLM PUBMED)  
 National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)  
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
 Organization for Economic Co-operation and Development Screening Information Data Set  
 World Health Organization

**Revision date** 01-Feb-2024

**Revision Note****Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**

H350 - May cause cancer

H373 - May cause damage to organs through prolonged or repeated exposure

**Physical state** Solid**Precautionary Statements - Prevention**

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Wear protective gloves/clothing and eye/face protection

Do not breathe dust/fume/gas/mist/vapors/spray

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other information**

May be harmful if swallowed. Harmful to aquatic life with long lasting effects. Toxic to aquatic life.

### 3. Composition/information on ingredients

Not applicable.

**Mixture**

Chemical name	CAS No	Weight-%
Spinels, chromium cobalt iron black	68186-97-0	40 - 60
Quartz	14808-60-7	3 - <5
Kaolin	1332-58-7	3 - <5
Frits, chemicals	65997-18-4	3 - <5
1,2,3-Propanetriol	56-81-5	1 - <3

### 4. First-aid measures

**Description of first aid measures****General advice**

IF exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance.

**Inhalation**

Remove to fresh air.

**Eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

**Skin contact**

Wash skin with soap and water.

**Ingestion**

Rinse mouth.

**Most important symptoms and effects, both acute and delayed**

Symptoms No information available.

**Indication of any immediate medical attention and special treatment needed**

Note to physicians Treat symptomatically.

**5. Fire-fighting measures**

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

**Specific hazards arising from the chemical** No information available.

**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.

**Other information** Refer to protective measures listed in Sections 7 and 8.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

**7. Handling and storage****Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place.

**8. Exposure controls/personal protection**

**Control parameters**

**Exposure Limits**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Spinels, chromium cobalt iron black 68186-97-0	TWA: 0.02 mg/m <sup>3</sup> Co inhalable particulate matter	TWA: 0.5 mg/m <sup>3</sup> Cr (vacated) TWA: 0.5 mg/m <sup>3</sup> Cr	IDLH: 25 mg/m <sup>3</sup> Cr(III) TWA: 0.5 mg/m <sup>3</sup> Cr
Quartz 14808-60-7	TWA: 0.025 mg/m <sup>3</sup> respirable particulate matter	TWA: 50 µg/m <sup>3</sup> (vacated) TWA: 0.1 mg/m <sup>3</sup> respirable dust : (250)/(%SiO <sub>2</sub> + 5) mppcf TWA respirable fraction : (10)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA respirable fraction	IDLH: 50 mg/m <sup>3</sup> respirable dust TWA: 0.05 mg/m <sup>3</sup> respirable dust
Kaolin 1332-58-7	TWA: 2 mg/m <sup>3</sup> particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust
Frits, chemicals 65997-18-4	STEL: 10 mg/m <sup>3</sup> Zr TWA: 0.01 mg/m <sup>3</sup> As TWA: 0.05 mg/m <sup>3</sup> Pb TWA: 0.01 mg/m <sup>3</sup> Cd TWA: 0.002 mg/m <sup>3</sup> Cd respirable particulate matter TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 1 mg/m <sup>3</sup> Cu dust and mist TWA: 3 mg/m <sup>3</sup> W respirable particulate matter in the absence of cobalt TWA: 5 mg/m <sup>3</sup> Zr TWA: 0.02 mg/m <sup>3</sup> Mn respirable particulate matter TWA: 0.1 mg/m <sup>3</sup> Mn inhalable particulate matter	TWA: 10 µg/m <sup>3</sup> As TWA: 50 µg/m <sup>3</sup> Pb TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 5 mg/m <sup>3</sup> Zr (vacated) TWA: 0.5 mg/m <sup>3</sup> Sb (vacated) TWA: 5 mg/m <sup>3</sup> Zr (vacated) STEL: 10 mg/m <sup>3</sup> Zr (vacated) Ceiling: 5 mg/m <sup>3</sup> Ceiling: 5 mg/m <sup>3</sup> Mn	IDLH: 5 mg/m <sup>3</sup> As IDLH: 9 mg/m <sup>3</sup> Cd dust and fume IDLH: 50 mg/m <sup>3</sup> Sb IDLH: 100 mg/m <sup>3</sup> Cu dust and mist IDLH: 500 mg/m <sup>3</sup> Mn IDLH: 25 mg/m <sup>3</sup> Zr IDLH: 100 mg/m <sup>3</sup> Pb IDLH: 10 mg/m <sup>3</sup> Ni Ceiling: 0.002 mg/m <sup>3</sup> As 15 min Ceiling: 0.05 mg/m <sup>3</sup> V dust and fume 15 min TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 1 mg/m <sup>3</sup> Cu dust and mist TWA: 1 mg/m <sup>3</sup> Mn TWA: 5 mg/m <sup>3</sup> except Zirconium tetrachloride Zr TWA: 0.050 mg/m <sup>3</sup> Pb TWA: 0.015 mg/m <sup>3</sup> except Nickel carbonyl Ni STEL: 3 mg/m <sup>3</sup> Mn STEL: 10 mg/m <sup>3</sup> Zr
1,2,3-Propanetriol 56-81-5	-	TWA: 15 mg/m <sup>3</sup> mist, total particulate TWA: 5 mg/m <sup>3</sup> mist, respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> mist, total particulate (vacated) TWA: 5 mg/m <sup>3</sup> mist, respirable fraction	-

**Biological occupational exposure limits**

Chemical name	ACGIH
Spinels, chromium cobalt iron black 68186-97-0	15 µg/L - urine (Cobalt) - end of shift at end of workweek
Frits, chemicals	200 µg/L - blood (Lead) - not critical

65997-18-4	5 µg/g creatinine - urine (Cadmium) - not critical 5 µg/L - blood (Cadmium) - not critical
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**Appropriate engineering controls**

**Engineering controls**                      Showers  
    Eyewash stations  
    Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**                      No special protective equipment required.

**Hand protection**                              Wear suitable gloves.

**Skin and body protection**                      Wear suitable protective clothing.

**Respiratory protection**                      No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations**                      Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

**9. Physical and chemical properties**

**Information on basic physical and chemical properties**

**Physical state**                                      Solid

**Appearance**

**Color**

**Odor**

**Odor threshold**

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Relative vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

**Other information**

**Explosive properties**                              No information available

**Oxidizing properties**                              No information available

**VOC Content (%)**                                      No information available

## 10. Stability and reactivity

<b>Reactivity</b>	No information available.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	None known based on information supplied.
<b>Incompatible materials</b>	None known based on information supplied.
<b>Hazardous decomposition products</b>	None known based on information supplied.

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	May be harmful if swallowed.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Symptoms</b>	No information available.
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### Acute toxicity

#### Numerical measures of toxicity

No information available

The following values are calculated based on chapter 3.1 of the GHS document

<b>ATEmix (oral)</b>	2,277.00 mg/kg
<b>ATEmix (dermal)</b>	31,318.50 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	29.40 mg/l

#### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Spinels, chromium cobalt iron black 68186-97-0	-	-	> 5.09 mg/L ( Rat ) 4 h
Kaolin 1332-58-7	> 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rat )	-
Frits, chemicals 65997-18-4	> 2000 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-
1,2,3-Propanetriol 56-81-5	= 12600 mg/kg ( Rat )	> 10 g/kg ( Rabbit )	> 2.75 mg/L ( Rat ) 4 h

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Skin corrosion/irritation</b>	No information available.
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<b>Serious eye damage/eye irritation</b>	No information available.
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**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Spinels, chromium cobalt iron black 68186-97-0	A3	Group 2B Group 3	Reasonably Anticipated	X
Quartz 14808-60-7	A2	Group 1	Known	X
Frits, chemicals 65997-18-4	A1 A3 A2	Group 1 Group 2B Group 2A	Known Reasonably Anticipated	X

**Legend**

**ACGIH (American Conference of Governmental Industrial Hygienists)**

- A1 - Known Human Carcinogen
- A2 - Suspected Human Carcinogen
- A3 - Animal Carcinogen

**IARC (International Agency for Research on Cancer)**

- Group 1 - Carcinogenic to Humans
- Group 2A - Probably Carcinogenic to Humans
- Group 2B - Possibly Carcinogenic to Humans
- Group 3 - Not Classifiable as to Carcinogenicity in Humans

**NTP (National Toxicology Program)**

- Known - Known Carcinogen
- Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

- X - Present

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Target organ effects** Liver, Kidney, Respiratory system, Eyes, Skin, Central nervous system, Blood, Central Vascular System (CVS), Lungs, Nasal Cavities, Lymphatic System, prostate, Gastrointestinal tract (GI).

**Aspiration hazard** No information available.

**Other adverse effects**

**Interactive effects**

**12. Ecological information**

**Ecotoxicity** Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
1,2,3-Propanetriol 56-81-5	-	LC50: 51 - 57mL/L (96h, Oncorhynchus mykiss)	-	-

**Persistence and degradability**

**Bioaccumulation**

**Component Information**

Chemical name	Partition coefficient
1,2,3-Propanetriol 56-81-5	-1.76

**Other adverse effects** No information available.

**13. Disposal considerations**

**Disposal methods**

**Waste from residues/unused products** Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations.

**Contaminated packaging** Do not reuse empty containers.

**California Hazardous Waste Status** This product contains one or more substances that are listed with the State of California as a hazardous waste.

**14. Transport information**

**DOT** Not regulated

**15. Regulatory information**

**International Inventories**

**TSCA** Contact supplier for inventory compliance status.

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Corn syrup	8029-43-4	Present	Active
Spinels, chromium cobalt iron black	68186-97-0	Present	Active
Water	7732-18-5	Present	Active
Dextrin	9004-53-9	Present	Active
Feldspar	68476-25-5	Present	Active
Kaolin	1332-58-7	Present	Active
Quartz	14808-60-7	Present	Active



Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Frits, chemicals	65997-18-4	Present	Active
1,2,3-Propanetriol	56-81-5	Present	Active
Benzoic acid, 4-hydroxy-, methyl ester	99-76-3	Present	Active

**DSL/NDSL** Contact supplier for inventory compliance status.  
**EINECS/ELINCS** Contact supplier for inventory compliance status.  
**ENCS** Contact supplier for inventory compliance status.  
**IECSC** Contact supplier for inventory compliance status.  
**KECL** Contact supplier for inventory compliance status.  
**PICCS** Contact supplier for inventory compliance status.  
**AIIC** Contact supplier for inventory compliance status.  
**NZIoC** Contact supplier for inventory compliance status.

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AIIC** - Australian Inventory of Industrial Chemicals  
**NZIoC** - New Zealand Inventory of Chemicals

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
Spinels, chromium cobalt iron black - 68186-97-0	0.1 1.0
Frits, chemicals - 65997-18-4	0.1 1.0

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Spinels, chromium cobalt iron black 68186-97-0	-	X	-	-
Frits, chemicals 65997-18-4	-	X	-	-

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**US State Regulations**

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Spinels, chromium cobalt iron black 68186-97-0	X	-	X
Water 7732-18-5	-	-	X
Feldspar 68476-25-5	X	-	X
Kaolin 1332-58-7	X	X	X
Quartz 14808-60-7	X	X	X
Frits, chemicals 65997-18-4	X	-	X
1,2,3-Propanetriol 56-81-5	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. Other information**

**NFPA** Health hazards 1 Flammability 0 Instability 0 Special hazards -  
**HMIS** Health hazards \* 2 1 Flammability 0 Physical hazards 0 Personal protection X  
*Chronic Hazard Star Legend \* = Chronic Health Hazard*

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend Section 8: Exposure controls/personal protection**

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)  
 Ceiling Maximum limit value \* Skin designation

**Key literature references and sources for data used to compile the SDS**

- Agency for Toxic Substances and Disease Registry (ATSDR)
- U.S. Environmental Protection Agency ChemView Database
- European Food Safety Authority (EFSA)
- EPA (Environmental Protection Agency)
- Acute Exposure Guideline Level(s) (AEGl(s))
- U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
- U.S. Environmental Protection Agency High Production Volume Chemicals
- Food Research Journal
- Hazardous Substance Database
- International Uniform Chemical Information Database (IUCLID)
- National Institute of Technology and Evaluation (NITE)
- Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
- NIOSH (National Institute for Occupational Safety and Health)
- National Library of Medicine's ChemID Plus (NLM CIP)
- National Library of Medicine's PubMed database (NLM PUBMED)
- National Toxicology Program (NTP)
- New Zealand's Chemical Classification and Information Database (CCID)
- Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
- Organization for Economic Co-operation and Development High Production Volume Chemicals Program
- Organization for Economic Co-operation and Development Screening Information Data Set
- World Health Organization

Revision date 31-Jan-2024

**Revision Note****Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**