SAFETY DATA SHEET

AMACO EST. 1919 brent

Revision Number 1

Revision date 01-Feb-2024

1. Identification			
Product identifier			
Product Name	Semi-Moist Underglaze - Orange		
Other means of identification			
Product Code(s)	FG00742		
Synonyms	41421S, 01691J		
Recommended use of the chemica	al and restrictions on use		
Recommended use			
Restrictions on use			
Details of the supplier of the safet	y 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	I		
<u>Classification</u>			
Specific target organ toxicity (repeated	ed 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.

<u>Mixture</u>

Chemical name	CAS No	Weight-%
C.I. Pigment Brown 33	68186-88-9	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	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 Large Fire	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. 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 Brown 33	-	TWA: 0.5 mg/m ³ Cr	IDLH: 25 mg/m ³ Cr(III)
68186-88-9		(vacated) TWA: 0.5 mg/m ³ Cr	TWA: 0.5 mg/m ³ Cr

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Quartz	TWA: 0.025 mg/m ³ respirable	TWA: 50 μg/m³	IDLH: 50 mg/m ³ respirable dust
14808-60-7	particulate matter	(vacated) TWA: 0.1 mg/m ³	TWA: 0.05 mg/m ³ respirable
		respirable dust	dust
		: (250)/(%SiO2 + 5) mppcf	
		TWA respirable fraction	
		: (10)/(%SiO2 + 2) mg/m ³	
		TWA respirable fraction	
Kaolin	TWA: 2 mg/m ³ particulate	TWA: 15 mg/m ³ total dust	TWA: 10 mg/m ³ total dust
1332-58-7	matter containing no asbestos	TWA: 5 mg/m ³ respirable	TWA: 5 mg/m ³ respirable dust
	and <1% crystalline silica,	fraction	
	respirable particulate matter	(vacated) TWA: 10 mg/m ³ total	
		dust	
		(vacated) TWA: 5 mg/m ³	
		respirable fraction	
Frits, chemicals	STEL: 10 mg/m ³ Zr	TWA: 10 µg/m³ As	IDLH: 5 mg/m ³ As
65997-18-4	TWA: 0.01 mg/m ³ As	TWA: 50 µg/m ³ Pb	IDLH: 9 mg/m ³ Cd dust and
	TWA: 0.05 mg/m ³ Pb	TWA: 0.5 mg/m ³ Sb	fume
	TWA: 0.01 mg/m ³ Cd	TWA: 5 mg/m ³ Zr	IDLH: 50 mg/m ³ Sb
	TWA: 0.002 mg/m ³ Cd	(vacated) TWA: 0.5 mg/m ³ Sb	IDLH: 100 mg/m ³ Cu dust and
	respirable particulate matter	(vacated) TWA: 5 mg/m ³ Zr	mist
	TWA: 0.5 mg/m ³ Sb	(vacated) STEL: 10 mg/m ³ Zr	IDLH: 500 mg/m ³ Mn
	TWA: 1 mg/m ³ Cu dust and mist	(vacated) Ceiling: 5 mg/m ³	IDLH: 25 mg/m ³ Zr
	TWA: 3 mg/m ³ W respirable	Ceiling: 5 mg/m ³ Mn	IDLH: 100 mg/m ³ Pb
	particulate matter in the absence	5 5	IDLH: 10 mg/m ³ Ni
	of cobalt		Ceiling: 0.002 mg/m³ As 15 min
	TWA: 5 mg/m ³ Zr		Ceiling: 0.05 mg/m ³ V dust and
	TWA: 0.02 mg/m ³ Mn respirable		fume 15 min
	particulate matter		TWA: 0.5 mg/m ³ Sb
	TWA: 0.1 mg/m ³ Mn inhalable		TWA: 1 mg/m ³ Cu dust and
	particulate matter		mist
			TWA: 1 mg/m ³ Mn
			TWA: 5 mg/m ³ except Zirconium
			tetrachloride Zr
			TWA: 0.050 mg/m ³ Pb
			TWA: 0.015 mg/m ³ except
			Nickel carbonyl Ni
			STEL: 3 mg/m ³ Mn
			STEL: 10 mg/m ³ Zr
1,2,3-Propanetriol		TWA: 15 mg/m ³ mist, total	
56-81-5	-	particulate	-
50-01-5		TWA: 5 mg/m ³ mist, respirable	
		fraction	
		(vacated) TWA: 10 mg/m ³ mist,	
		total particulate	
		(vacated) TWA: 5 mg/m ³ mist,	
		respirable fraction	

Biological occupational exposure limits

Chemical name	ACGIH
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

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
Odor threshold

Property_	Values	Remarks • Method
рН	No data available	None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling rang	je 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		
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Reactivity	No information available.	
Chemical stability	Stable under normal conditions.	
Possibility of hazardous reactions	None under normal processing.	

Conditions to avoid None known based on information supplied.

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	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

ATEmix (oral)	2,269.30 mg/kg
ATEmix (dermal)	30,769.20 mg/kg
ATEmix (inhalation-dust/mist)	29.00 mg/l

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
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 Brown 33 68186-88-9	-	Group 3	-	-	
Quartz 14808-60-7	A2	Group 1	Known	Х	
Frits, chemicals 65997-18-4	A1 A3 A2	Group 1 Group 2B Group 2A	Known Reasonably Anticipated	Х	

 A1 - Known Human Carcinogen A2 - Suspected Human Carcinogen A3 - Animal Carcinogen IARC (International Agency for I Group 1 - Carcinogenic to Human Group 2A - Probably Carcinogenic Group 2B - Possibly Carcinogenic Group 3 - Not Classifiable as to Carcinogen MTP (National Toxicology Progr Known - Known Carcinogen Reasonably Anticipated - Reasonably 	Research on Cancer) s to Humans to Humans arcinogenicity in Humans
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	-1.76
56-81-5	

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
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

<u>SARA 313</u>

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	-	Х	-	-
Frits, chemicals 65997-18-4	-	Х	-	-

<u>CERCLA</u>

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

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information								
NFPA HMIS	Health hazards Health hazards		Flammability Flammability		Instability 0 Physical hazards 0	Special hazards - Personal protection X		
Legend Section & TWA Ceiling Key literature refe Agency for Toxic S U.S. Environmenta European Food Sa EPA (Environmenta Acute Exposure Gu U.S. Environmenta U.S. Environmenta Food Research Jou Hazardous Substat International Unifor National Institute of Australia National I NIOSH (National In National Library of National Library of National Library of National Toxicology New Zealand's Che Organization for Ed	nce Database m Chemical Information f Technology and Evalua ndustrial Chemicals Noti ostitute for Occupational Medicine's ChemID Plus Medicine's PubMed data y Program (NTP) emical Classification and conomic Co-operation an conomic Co-operation an	r data u Registr mView s)) eral Ins Produ Databa ation (Ni fication Safety a abase (I unform d Deve d Deve	protection S used to compile (ATSDR) Database ecticide, Fungici ction Volume Ch use (IUCLID) ITE) and Assessmer and Health) CIP) NLM PUBMED) ation Database (lopment Environ lopment High Pr	the SDS de, and Ro nemicals nt Scheme (CCID) ment, Hea roduction \	STEL (Short Terr Skin designation odenticide Act (NICNAS) alth, and Safety Publicatio /olume Chemicals Progra			
date of its publica transportation, di	provided in this Safety I ation. The information g sposal and release and	jiven is I is not	neet is correct t designed only to be considere	as a guid ed a warra				

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