SAFETY DATA SHEET



Revision Number 1

Revision date 01-Feb-2024

1. Identification	
Product identifier	
Product Name	Semi-Moist Underglaze - Aqua
Other means of identification	
Product Code(s)	FG00739
Synonyms	41419B, 01674B
Recommended use of the chemical	and restrictions on use
Recommended use	
Restrictions on use	
Details of the supplier of the safety	data sheet
<u>Manufacturer Address</u> 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	

SAFETY DATA SHEET



Revision Number 1

Revision date 01-Feb-2024

1. Identification			
Product identifier			
Product Name	Semi-Moist Underglaze - Chartreuse		
Other means of identification			
Product Code(s)	FG00714		
Synonyms	41423E, 01678F		
Recommended use of the chemical a	and restrictions on use		
Recommended use			
Restrictions on use			
Details of the supplier of the safety of	lata 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



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

187.2 % 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.

<u>Mixture</u>

Chemical name	CAS No	Weight-%
C.I. Pigment Yellow 159	68187-15-5	10 - 20
C.I. Pigment Blue 71	68186-95-8	5 - <10
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
Spinels, chromium cobalt iron black	68186-97-0	0.1 - 1

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.		
Inhalation	Remove to fresh air.		
Eye contact	contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyeli 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	s 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 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 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 Yellow 159	STEL: 10 mg/m ³ Zr	TWA: 5 mg/m ³ Zr	IDLH: 25 mg/m ³ Zr
68187-15-5	TWA: 5 mg/m ³ Zr	(vacated) TWA: 5 mg/m ³ Zr	TWA: 5 mg/m ³ except Zirconium
		(vacated) STEL: 10 mg/m ³ Zr	tetrachloride Zr
			STEL: 10 mg/m ³ Zr
C.I. Pigment Blue 71	STEL: 10 mg/m ³ Zr	TWA: 5 mg/m ³ Zr	IDLH: 25 mg/m ³ Zr
68186-95-8	TWA: 5 mg/m ³ Zr	(vacated) TWA: 5 mg/m ³ Zr (vacated) STEL: 10 mg/m ³ Zr	Ceiling: 0.05 mg/m ³ V dust and fume 15 min
		(vacaled) STEL. 10 mg/m ^s Zr	TWA: 5 mg/m ³ except Zirconium
			tetrachloride Zr
			STEL: 10 mg/m ³ Zr
Quartz	TWA: 0.025 mg/m ³ respirable	TWA: 50 µg/m ³	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, respirable particulate matter	fraction (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/m ³ 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 (vacated) Ceiling: 5 mg/m ³	IDLH: 500 mg/m ³ Mn IDLH: 25 mg/m ³ Zr
	TWA: 1 mg/m ³ Cu dust and mist TWA: 3 mg/m ³ W respirable	Ceiling: 5 mg/m ³ Mn	IDLH: 100 mg/m ³ Pb
	particulate matter in the absence		IDLH: 10 mg/m ³ Ni
	of cobalt		Ceiling: 0.002 mg/m ³ 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: 0.050 mg/m ³ Pb TWA: 0.015 mg/m ³ except
	1		i www.u.u.u.b.ing/m ^e except

			Nickel carbonyl Ni STEL: 3 mg/m ³ Mn STEL: 10 mg/m ³ Zr
1,2,3-Propanetriol 56-81-5	-	TWA: 15 mg/m ³ mist, total particulate 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	-
Spinels, chromium cobalt iron black 68186-97-0	TWA: 0.02 mg/m ³ Co inhalable particulate matter	TWA: 0.5 mg/m ³ Cr (vacated) TWA: 0.5 mg/m ³ Cr	IDLH: 25 mg/m ³ Cr(III) TWA: 0.5 mg/m ³ Cr

Biological occupational exposure limits

Chemical name	ACGIH
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
Spinels, chromium cobalt iron black 68186-97-0	15 μ g/L - urine (Cobalt) - end of shift at end of workweek

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			

Property_	Values
рН	No data available
Melting point / freezing point	No data available
Initial boiling point and boiling range	eNo data available
Flash point	No data available
Evaporation rate	No data available

Remarks • Method None known

None known None known None known None known

Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive	No data available	
limits		
Lower flammability or explosive	No data available	
limits		
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 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

Product Information

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	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 documentATEmix (oral)1,211.60 mg/kg

ATEmix (dermal)	17,223.60 mg/kg
ATEmix (inhalation-dust/mist)	16.90 mg/l

Unknown acute toxicity

187.2 % 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 Yellow 159	-	-	> 5.5 mg/L (Rat)4 h
68187-15-5			
C.I. Pigment Blue 71	-	-	> 5.1 mg/L (Rat)4 h
68186-95-8			
Kaolin 1332-58-7	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rat)	-
	2000 mg//rg (Dat)		
Frits, chemicals 65997-18-4	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
1,2,3-Propanetriol	= 12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 2.75 mg/L (Rat) 4 h
56-81-5			
Spinels, chromium cobalt iron	-	-	> 5.09 mg/L (Rat) 4 h
black			
68186-97-0			

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.

	milet each agene) hat			
Chemical name	ACGIH	IARC	NTP	OSHA
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
Spinels, chromium cobalt iron black 68186-97-0	A3	Group 2B Group 3	Reasonably Anticipated	Х

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)		

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 Yellow 159	68187-15-5	Present	Active
Water	7732-18-5	Present	Active
Dextrin	9004-53-9	Present	Active
C.I. Pigment Blue 71	68186-95-8	Present	Active
Kaolin	1332-58-7	Present	Active
Quartz	14808-60-7	Present	Active
Frits, chemicals	65997-18-4	Present	Active
Feldspar	68476-25-5	Present	Active
1,2,3-Propanetriol	56-81-5	Present	Active
Spinels, chromium cobalt iron black	68186-97-0	Present	Active
Benzoic acid, 4-hydroxy-, methyl ester	99-76-3	Present	Active

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 Blue 71 - 68186-95-8	1.0
Frits, chemicals - 65997-18-4	0.1
	1.0
Spinels, chromium cobalt iron black - 68186-97-0	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	-	Х	-	-
Spinels, chromium cobalt iron black 68186-97-0	-	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
Water	-	-	Х
7732-18-5			
C.I. Pigment Blue 71	Х	-	-
68186-95-8			
Kaolin	Х	X	X
1332-58-7			
Quartz	Х	X	Х
14808-60-7			
Frits, chemicals	Х	-	Х
65997-18-4			
Feldspar	Х	-	Х
68476-25-5			
1,2,3-Propanetriol	Х	X	Х
56-81-5			
Spinels, chromium cobalt iron	Х	-	Х
black			
68186-97-0			

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information of the second sec	ation			
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 (time-weighted average) STEL (Short Term Exposure Limit) TWA STEL 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

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 Number 1

Revision date 01-Feb-2024

1. Identification		
Product identifier		
Product Name	Semi-Moist Underglaze - Light Blue	
Other means of identification		
Product Code(s)	FG00717	
Synonyms	41418P, 01685C	
Recommended use of the chemical a	and restrictions on use	
Recommended use		
Restrictions on use		
Details of the supplier of the safety of	lata sheet	
<u>Manufacturer Address</u> 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

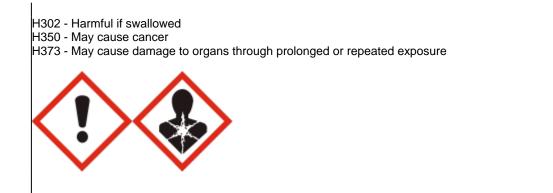
Acute toxicity - Oral	Category 4
Carcinogenicity	Category 1B
Specific target organ toxicity (repeated exposure)	Category 2

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Hazard statements
Danger



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

180.8 % 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.

<u>Mixture</u>

Chemical name	CAS No	Weight-%
Quartz	14808-60-7	10 - 20
Kaolin	1332-58-7	10 - 20
Frits, chemicals	65997-18-4	5 - <10
Zircon	14940-68-2	5 - <10
1,2,3-Propanetriol	56-81-5	1 - <3
C.I. Pigment Blue 28	1345-16-0	0.1 - 1

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.

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	
0	

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	e No information available.	
Explosion data Sensitivity to mechanical impact None.		
Sensitivity to static discharge	None.	
Special protective equipment and precautions for fire-fightersFirefighters should wear self-contained breathing apparatus and full firefighting turned 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 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
Quartz 14808-60-7	TWA: 0.025 mg/m ³ respirable particulate matter	TWA: 50 µg/m ³ (vacated) TWA: 0.1 mg/m ³ respirable dust : (250)/(%SiO2 + 5) mppcf TWA respirable fraction : (10)/(%SiO2 + 2) mg/m ³ TWA respirable fraction	IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust
Kaolin 1332-58-7	TWA: 2 mg/m ³ particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust
Frits, chemicals 65997-18-4	STEL: 10 mg/m ³ Zr TWA: 0.01 mg/m ³ As TWA: 0.05 mg/m ³ Pb TWA: 0.01 mg/m ³ Cd TWA: 0.002 mg/m ³ Cd respirable particulate matter TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and mist TWA: 3 mg/m ³ W respirable particulate matter in the absence of cobalt TWA: 5 mg/m ³ Zr TWA: 0.02 mg/m ³ Mn respirable particulate matter TWA: 0.1 mg/m ³ Mn inhalable particulate matter	TWA: 10 µg/m ³ As TWA: 50 µg/m ³ Pb TWA: 0.5 mg/m ³ Sb TWA: 5 mg/m ³ Zr (vacated) TWA: 0.5 mg/m ³ Sb (vacated) TWA: 5 mg/m ³ Zr (vacated) STEL: 10 mg/m ³ Zr (vacated) Ceiling: 5 mg/m ³ Ceiling: 5 mg/m ³ Mn	IDLH: 5 mg/m ³ As IDLH: 9 mg/m ³ Cd dust and fume IDLH: 50 mg/m ³ Sb IDLH: 100 mg/m ³ Cu dust and mist IDLH: 500 mg/m ³ Mn IDLH: 25 mg/m ³ Zr IDLH: 100 mg/m ³ Pb IDLH: 100 mg/m ³ Ni Ceiling: 0.002 mg/m ³ As 15 min Ceiling: 0.05 mg/m ³ V dust and fume 15 min TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and 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
Zircon 14940-68-2	STEL: 10 mg/m³ Zr TWA: 5 mg/m³ Zr	TWA: 5 mg/m³ Zr (vacated) TWA: 5 mg/m³ Zr (vacated) STEL: 10 mg/m³ Zr	IDLH: 25 mg/m ³ Zr TWA: 5 mg/m ³ except Zirconium tetrachloride Zr STEL: 10 mg/m ³ Zr
1,2,3-Propanetriol 56-81-5	-	TWA: 15 mg/m ³ mist, total particulate 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	
C.I. Pigment Blue 28 1345-16-0	TWA: 0.02 mg/m ³ Co inhalable particulate matter TWA: 1 mg/m ³ respirable particulate matter	-	-

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
C.I. Pigment Blue 28	15 μg/L - urine (Cobalt) - end of shift at end of workweek
1345-16-0	

Appropriate engineering controls

Engineering controls	Showers Eyewash stations Ventilation systems.
Individual protection measures, suc	ch 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
Property Values

	Values
рН	No data available
Melting point / freezing point	No data available
Initial boiling point and boiling range	eNo data available
Flash point	No data available
Evaporation rate	No data available
Flammability	No data available
Flammability Limit in Air	
Upper flammability or explosive	No data available
limits	
Lower flammability or explosive	No data available
limits	

Remarks • Method None known None known None known None known None known None known

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

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	
i i rexisere gieur internation	

Information on likely routes of exposure

Product Information	
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	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 ATEmix (oral) ATEmix (dermal) ATEmix (inhalation-dust/mist)	I based on chapter 3.1 of the GHS document 998.10 mg/kg 14,044.90 mg/kg 14.10 mg/l
Unknown acute toxicity	

180.8 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

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

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
Quartz 14808-60-7	A2	Group 1	Known	Х
Frits, chemicals	A1	Group 1	Known	Х
65997-18-4	A3	Group 2B	Reasonably Anticipated	
	A2	Group 2A		
C.I. Pigment Blue 28	A3	Group 2B	Reasonably Anticipated	Х
1345-16-0				

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)A1 - Known Human CarcinogenA2 - Suspected Human CarcinogenA3 - Animal CarcinogenIARC (International Agency for Research on Cancer)Group 1 - Carcinogenic to HumansGroup 2A - Probably Carcinogenic to HumansGroup 2B - Possibly Carcinogenic to HumansMTP (National Toxicology Program)Known - Known CarcinogenReasonably Anticipated - Reasonably Anticipated to be a Human CarcinogenOSHA (Occupational Safety and Health Administration of the US Department of Labor)X - Present

STOT - single exposureNo information available.STOT - repeated exposureMay cause damage to organs through prolonged or repeated exposure.Target organ effectsLiver, 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	Crustacea
			microorganisms	
1,2,3-Propanetriol	-	LC50: 51 - 57mL/L (96h,	-	-
56-81-5		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 consideration	S
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
Water	7732-18-5	Present	Active
Kaolin	1332-58-7	Present	Active
Quartz	14808-60-7	Present	Active
Dextrin	9004-53-9	Present	Active
Frits, chemicals	65997-18-4	Present	Active
Feldspar	68476-25-5	Present	Active
Zircon	14940-68-2	Present	Active
1,2,3-Propanetriol	56-81-5	Present	Active
C.I. Pigment Blue 28	1345-16-0	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 %
Frits, chemicals - 65997-18-4	0.1
	1.0
C.I. Pigment Blue 28 - 1345-16-0	0.1

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	-	Х	-	-

65997-18-4		

<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
Water	-	-	Х
7732-18-5			
Kaolin 1332-58-7	X	X	Х
Quartz 14808-60-7	Х	X	Х
Frits, chemicals 65997-18-4	Х	-	Х
Feldspar 68476-25-5	Х	-	Х
1,2,3-Propanetriol 56-81-5	Х	Х	Х
C.I. Pigment Blue 28 1345-16-0	Х	-	Х

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information				
NFPA <u>HMIS</u> Chronic Hazard Star Legen	Health hazards 1 Health hazards * 2 Ind *= Chronic I	Flammability 0 Flammability 0 Health Hazard	Instability 0 Physical hazards 0	Special hazards - Personal protection X
	viations and acronyms u		neet	
TWA TWA	oosure controls/personal ((time-weighted average) imum limit value	l protection STEL *	STEL (Short Term Skin designation	n Exposure Limit)
Agency for Toxic Substa U.S. Environmental Prot European Food Safety A EPA (Environmental Prot Acute Exposure Guidelir U.S. Environmental Prot U.S. Environmental Prot Food Research Journal Hazardous Substance D International Uniform Ch National Institute of Tech Australia National Indust NIOSH (National Institut National Library of Media	otection Agency) ne Level(s) (AEGL(s)) rection Agency Federal Ins rection Agency High Produ	y (ATSDR) Database ecticide, Fungicide, and R ction Volume Chemicals ase (IUCLID) ITE) and Assessment Scheme and Health) CIP)	odenticide Act	

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 Revision Note <u>Disclaimer</u> 01-Feb-2024

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

AMACO EST. 1919

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	l		
<u>Classification</u>			
Specific target organ toxicity (repeat	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.

Mixture

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 impac	t 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 containme	ent 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

	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·
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 propertiesPhysical stateSolidAppearanceColorOdorOdorOdor thresholdSolid

Property pH Melting point / freezing point Initial boiling point and boiling rang Flash point Evaporation rate Flammability Flammability Limit in Air Upper flammability or explosive	Values No data available No data available geNo data available No data available No data available No data available	Remarks • Method None known None known None known None known None known None known	
limits Lower flammability or explosive limits	No data available		
Vapor pressure Relative vapor density Relative density Water solubility Solubility(ies) Partition coefficient Autoignition temperature Decomposition temperature Kinematic viscosity Dynamic viscosity <u>Other information</u> Explosive properties Oxidizing properties VOC Content (%)	No data available No information available No information available No information available	None known None known None known None known None known None known None known None known	
10. Stability and reactivity			
Reactivity	No information available.		
Chemical stability	Stable under normal conditions.		
Possibility of hazardous reactions	None under normal processing.		

Conditions to avoid

Incompatible materials	None known based on information supplied.
------------------------	---

Hazardous decomposition products None known based on information supplied.

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

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	-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 infor	rmation				
NFPA HMIS	Health hazards 1 Health hazards * 2 1	Flammability Flammability		Instability 0 Physical hazards 0	Special hazards - Personal protection X
Legend Section 8: TWA Ceiling Key literature refer Agency for Toxic Su U.S. Environmental European Food Safe EPA (Environmental Acute Exposure Gui U.S. Environmental V.S. Environmental Food Research Jour Hazardous Substand International Uniform National Institute of Australia National Ins NIOSH (National Ins National Library of M National Library of M National Toxicology New Zealand's Cher Organization for Ecc	I Protection Agency) deline Level(s) (AEGL(s)) Protection Agency Federal Ir Protection Agency High Proc rnal ce Database n Chemical Information Datal Technology and Evaluation (dustrial Chemicals Notificatio stitute for Occupational Safet Medicine's ChemID Plus (NLM Medicine's PubMed database Program (NTP) mical Classification and Infor ponomic Co-operation and Dev ponomic Co-operation and Dev	al protection) S * • used to compile try (ATSDR) v Database secticide, Fungicia uction Volume Ch base (IUCLID) NITE) on and Assessmen and Health) 1 CIP) (NLM PUBMED) mation Database (velopment Environ velopment High Pro-	the SDS e the SDS de, and Rod emicals nt Scheme (CCID) ment, Heal oduction Vo	STEL (Short Tern Skin designation denticide Act (NICNAS) th, and Safety Publicatio plume Chemicals Progra	
date of its publicat transportation, dis	01-Feb-2 ovided in this Safety Data s ion. The information given posal and is no	Sheet is correct to is designed only it to be considere	as a guida ed a warrai	ince for safe handling, nty or quality specifica	use, processing, storage, tion. The information

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

AMACO Est. 1919 brent

Revision Number 1

Revision date 01-Feb-2024

1. Identification		
Product identifier		
Product Name	Semi-Moist Underglaze - Peach	
Other means of identification		
Product Code(s)	RM00011	
Synonyms	41422T	
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		
<u>Classification</u>		
Specific target organ toxicity (repeated	d 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 effe	cts, both acute and delayed
Symptoms	
Indication of any immediate medica	al 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 impac	t 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.
ethods 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

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

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 threshold

Property pH Melting point / freezing point Initial boiling point and boiling rang Flash point Evaporation rate Flammability Flammability Limit in Air Upper flammability or explosive	Values No data available No data available No data available No data available No data available No data available	Remarks • Method None known None known None known None known None known None known		
limits Lower flammability or explosive limits	No data available			
Vapor pressure Relative vapor density Relative density Water solubility Solubility(ies) Partition coefficient Autoignition temperature Decomposition temperature Kinematic viscosity Dynamic viscosity <u>Other information</u> Explosive properties Oxidizing properties VOC Content (%)	No data available No information available No information available No information available	None known None known None known None known None known None known None known None known		
10. Stability and reactivity				
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

LegendACGIH (American Conference of Governmental Industrial Hygienists)A1 - Known Human CarcinogenA2 - Suspected Human CarcinogenA3 - Animal CarcinogenIARC (International Agency for Research on Cancer)Group 1 - Carcinogenic to HumansGroup 2A - Probably Carcinogenic to HumansGroup 3 - Not Classifiable as to Carcinogenicity in HumansNTP (National Toxicology Program)Known - Known CarcinogenReasonably Anticipated - Reasonably Anticipated to be a Human CarcinogenOSHA (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	-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	-	-	X
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 info	rmation				
NFPA HMIS	Health hazards 1 Health hazards * 2 1	Flammability Flammability		Instability 0 Physical hazards 0	Special hazards - Personal protection X
Legend Section 8 TWA Ceiling Key literature refer Agency for Toxic Su U.S. Environmental European Food Saf EPA (Environmenta Acute Exposure Gu U.S. Environmental V.S. Environmental Food Research Jou Hazardous Substan International Uniforn National Institute of Australia National In NIOSH (National In National Library of N National Library of N National Toxicology New Zealand's Che Organization for Eco	nce Database m Chemical Information Data Technology and Evaluation (ndustrial Chemicals Notification stitute for Occupational Safet Medicine's ChemID Plus (NLI Medicine's PubMed database r Program (NTP) mical Classification and Infor onomic Co-operation and De onomic Co-operation and De	al protection a used to compile stry (ATSDR) w Database base (IUCLID) NITE) on and Assessment y and Health) M CIP) (NLM PUBMED) mation Database velopment Enviror velopment High P	the SDS e the SDS ide, and Ro nemicals nt Scheme (CCID) nment, Hea roduction V	STEL (Short Terr Skin designation odenticide Act (NICNAS)	ns
date of its publicat transportation, dis	01-Feb-2 rovided in this Safety Data tion. The information given sposal and release and is no	Sheet is correct t is designed only of to be consider	r as a guid ed a warra	ance for safe handling, anty or quality specificat	use, processing, storage, tion. The information

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 Number 1

Revision date 01-Feb-2024

1. Identification	
Product identifier	
Product Name	Semi-Moist Underglaze - Purple
Other means of identification	
Product Code(s)	FG00728
Synonyms	41417N, 01694M
Recommended use of the chemical	and restrictions on use
Recommended use	
Restrictions on use	
Details of the supplier of the safety of	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



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

199.4 % 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.

<u>Mixture</u>

Chemical name	CAS No	Weight-%
C.I. Pigment Red 233	68187-12-2	10 - 20
Quartz	14808-60-7	10 - 20
Kaolin	1332-58-7	10 - 20
Frits, chemicals	65997-18-4	10 - 20
C.I. Pigment Blue 73	68187-40-6	1 - <3
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.

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		

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 impac	et 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, includin	ng 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	-	TWA: 0.5 mg/m ³ Cr	IDLH: 25 mg/m ³ Cr(III)
68187-12-2		(vacated) TWA: 0.5 mg/m ³ Cr	TWA: 0.5 mg/m ³ Cr
Quartz 14808-60-7	TWA: 0.025 mg/m ³ respirable particulate matter	 TWA: 50 μg/m³ (vacated) TWA: 0.1 mg/m³ respirable dust (250)/(%SiO2 + 5) mppcf TWA respirable fraction (10)/(%SiO2 + 2) mg/m ³ TWA respirable fraction 	IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust
Kaolin 1332-58-7	TWA: 2 mg/m ³ particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust
Frits, chemicals 65997-18-4	STEL: 10 mg/m ³ Zr TWA: 0.01 mg/m ³ As TWA: 0.05 mg/m ³ Pb TWA: 0.01 mg/m ³ Cd TWA: 0.002 mg/m ³ Cd respirable particulate matter TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and mist TWA: 3 mg/m ³ W respirable particulate matter in the absence of cobalt TWA: 5 mg/m ³ Zr TWA: 0.02 mg/m ³ Mn respirable particulate matter TWA: 0.1 mg/m ³ Mn inhalable particulate matter	TWA: 10 µg/m ³ As TWA: 50 µg/m ³ Pb TWA: 0.5 mg/m ³ Sb TWA: 5 mg/m ³ Zr (vacated) TWA: 0.5 mg/m ³ Sb (vacated) TWA: 5 mg/m ³ Zr (vacated) STEL: 10 mg/m ³ Zr (vacated) Ceiling: 5 mg/m ³ Ceiling: 5 mg/m ³ Mn	IDLH: 5 mg/m ³ As IDLH: 9 mg/m ³ Cd dust and fume IDLH: 50 mg/m ³ Sb IDLH: 100 mg/m ³ Cu dust and mist IDLH: 500 mg/m ³ Mn IDLH: 25 mg/m ³ Zr IDLH: 100 mg/m ³ Pb IDLH: 100 mg/m ³ Ni Ceiling: 0.002 mg/m ³ As 15 min Ceiling: 0.05 mg/m ³ V dust and fume 15 min TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and mist TWA: 1 mg/m ³ Mn TWA: 5 mg/m ³ except Zirconium tetrachloride Zr TWA: 0.015 mg/m ³ except Nickel carbonyl Ni STEL: 3 mg/m ³ Mn
C.I. Pigment Blue 73 68187-40-6	TWA: 0.02 mg/m ³ Co inhalable particulate matter	-	-
1,2,3-Propanetriol 56-81-5	-	TWA: 15 mg/m ³ mist, total particulate TWA: 5 mg/m ³ mist, respirable fraction	-

(vacated) TWA: 10 mg/m ³ mis	,
total particulate	
(vacated) TWA: 5 mg/m ³ mist,	
respirable fraction	

Biological occupational exposure limits

Chemical name	ACGIH
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
C.I. Pigment Blue 73 68187-40-6	15 μ g/L - urine (Cobalt) - end of shift at end of workweek

Appropriate engineering controls

Engineering controls	Showers Eyewash stations Ventilation systems.
Individual protection measures, su	ch 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

Physical state	Solid	
Appearance		
Color		
Odor		
Odor threshold		
Property_	Values	Remarks • Method
pH	No data available	None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling rang	eNo 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

FG00728 - Semi-Moist Underglaze - Purple

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

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

Product Information

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	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

ATEmix (oral)	915.10 mg/kg
ATEmix (dermal)	13,054.80 mg/kg
ATEmix (inhalation-dust/mist)	12.90 mg/l

Unknown acute toxicity

199.4 % 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	-	-	> 5.4 mg/L (Rat)4 h
68187-12-2			

FG00728 - Semi-Moist Underglaze - Purple

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)	-
C.I. Pigment Blue 73 68187-40-6	-	-	= 5.3 mg/L (Rat)4 h > 5.3 mg/L (Rat)4 h
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 Red 233	-	Group 3	-	-
68187-12-2				
Quartz 14808-60-7	A2	Group 1	Known	X
Frits, chemicals	A1	Group 1	Known	Х
65997-18-4	A3	Group 2B	Reasonably Anticipated	
	A2	Group 2A		
C.I. Pigment Blue 73	A3	Group 2B	Reasonably Anticipated	X
68187-40-6				

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	Crustacea
			microorganisms	
1,2,3-Propanetriol	-	LC50: 51 - 57mL/L (96h,	-	-
56-81-5		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
Water	7732-18-5	Present	Active
C.I. Pigment Red 233	68187-12-2	Present	Active
Kaolin	1332-58-7	Present	Active
Quartz	14808-60-7	Present	Active
Dextrin	9004-53-9	Present	Active
Frits, chemicals	65997-18-4	Present	Active
Feldspar	68476-25-5	Present	Active
C.I. Pigment Blue 73	68187-40-6	Present	Active
1,2,3-Propanetriol	56-81-5	Present	Active
Benzoic acid, 4-hydroxy-, methyl ester	99-76-3	Present	Active

DSL/NDSL EINECS/ELINCS	Contact supplier for inventory compliance status. 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 Red 233 - 68187-12-2	1.0
Frits, chemicals - 65997-18-4	0.1
	1.0
C.I. Pigment Blue 73 - 68187-40-6	0.1

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

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	-	-	Х
C.I. Pigment Red 233 68187-12-2	Х	-	Х
Kaolin 1332-58-7	Х	X	Х
Quartz 14808-60-7	Х	X	Х
Frits, chemicals 65997-18-4	Х	-	Х
Feldspar 68476-25-5	Х	-	Х
C.I. Pigment Blue 73 68187-40-6	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 Chronic Hazard Star	Health hazards 1 Health hazards * 2 Legend *= Chronic He	Flammability 0 Flammability 0 ealth Hazard	Instability 0 Physical hazards 0	Special hazards $\ -$ Personal protection $\ X$
	abbreviations and acronyms us		heet	
	8: Exposure controls/personal TWA (time-weighted average)	protection STEL	STEL (Short Torm	Evennura Limit)
TWA Ceiling	Maximum limit value	siel *	STEL (Short Term Skin designation	
Agency for Toxic S U.S. Environmenta European Food Sa EPA (Environmenta Acute Exposure G U.S. Environmenta	erences and sources for data us Substances and Disease Registry al Protection Agency ChemView D afety Authority (EFSA) tal Protection Agency) uideline Level(s) (AEGL(s)) al Protection Agency High Product	(ATSDR) Database cticide, Fungicide, and F		

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 Revision Note <u>Disclaimer</u> 01-Feb-2024

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 Number 1

Revision date 01-Feb-2024

1. Identification	
Product identifier	
Product Name	Semi-Moist Underglaze - Rose
Other means of identification	
Product Code(s)	FG00731
Synonyms	41420R, 01695N
Recommended use of the chemical	and restrictions on use
Recommended use	
Restrictions on use	
Details of the supplier of the safety	data sheet
<u>Manufacturer Address</u> 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	





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

203.64 % 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. CAUTION: Use of water spray when fighting fire may be inefficient.
Laigerne	CAUTION. Use of water spray when lighting me may be memolent.
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 impac	ct 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 containm	ent 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 ³ Cr (vacated) TWA: 0.5 mg/m ³ Cr	IDLH: 25 mg/m ³ Cr(III) TWA: 0.5 mg/m ³ Cr
Quartz 14808-60-7	TWA: 0.025 mg/m ³ respirable particulate matter	 TWA: 50 μg/m³ (vacated) TWA: 0.1 mg/m³ respirable dust (250)/(%SiO2 + 5) mppcf TWA respirable fraction (10)/(%SiO2 + 2) mg/m ³ TWA respirable fraction 	IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust
Kaolin 1332-58-7	TWA: 2 mg/m ³ particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust
Frits, chemicals 65997-18-4	STEL: 10 mg/m ³ Zr TWA: 0.01 mg/m ³ As TWA: 0.05 mg/m ³ Pb TWA: 0.01 mg/m ³ Cd TWA: 0.002 mg/m ³ Cd respirable particulate matter TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and mist TWA: 3 mg/m ³ W respirable particulate matter in the absence of cobalt TWA: 5 mg/m ³ Zr TWA: 0.02 mg/m ³ Mn respirable particulate matter TWA: 0.1 mg/m ³ Mn inhalable particulate matter	TWA: 10 μg/m³ As TWA: 50 μg/m³ Pb TWA: 0.5 mg/m³ Sb TWA: 5 mg/m³ Zr (vacated) TWA: 0.5 mg/m³ Sb (vacated) TWA: 5 mg/m³ Zr (vacated) STEL: 10 mg/m³ Zr (vacated) Ceiling: 5 mg/m³ Ceiling: 5 mg/m³ Mn	IDLH: 5 mg/m ³ As IDLH: 9 mg/m ³ Cd dust and fume IDLH: 50 mg/m ³ Sb IDLH: 100 mg/m ³ Cu dust and mist IDLH: 500 mg/m ³ Mn IDLH: 25 mg/m ³ Zr IDLH: 100 mg/m ³ Pb IDLH: 10 mg/m ³ Ni Ceiling: 0.002 mg/m ³ As 15 min Ceiling: 0.05 mg/m ³ V dust and fume 15 min TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and mist TWA: 1 mg/m ³ Cu dust and 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
1,2,3-Propanetriol 56-81-5	-	TWA: 15 mg/m ³ mist, total particulate 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

Appropriate engineering controls

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

Engineering controls	Showers Eyewash stations Ventilation systems.
Individual protection measures, suc	ch 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

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	ge 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	No data available	
limits		
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

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

Product Information

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	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 documentATEmix (oral)1,136.90 mg/kgATEmix (dermal)16,136.80 mg/kg

ATEINIX (uernial)	10,130.00 11
ATEmix (inhalation-dust/mist)	15.70 mg/l

Unknown acute toxicity

203.64 % 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.

No information available. Respiratory or skin sensitization

Germ cell mutagenicity

No information available.

Carcinogenicity

No information available. The table below indicates whether each agency has listed any ingredient as a carcinogen

	s whether each agency has	s listed any ingredient as a	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	Х
Frits, chemicals	A1	Group 1	Known	Х
65997-18-4	A3	Group 2B	Reasonably Anticipated	
	A2	Group 2A		

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)		
00010	••••••	1	

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 Red 233	68187-12-2	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 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	-	Х	-	-
Frits, chemicals 65997-18-4	-	Х	-	-

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	Х	-	Х

FG00731 - Semi-Moist Underglaze - Rose

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

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information Health hazards 1 Flammability 0 Instability 0 NFPA 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 01-Feb-2024 **Revision date 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 Number 1

Revision date 01-Feb-2024

1. Identification		
Product identifier		
Product Name	Semi-Moist Underglazes - Suntan	
Other means of identification		
Product Code(s)	FG00733	
Synonyms	41424H, 01696P	
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	





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

197.73 % 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.

<u>Mixture</u>

Chemical name	CAS No	Weight-%
Silicic acid (H4SiO4), zirconium(4+) salt (1:1)	10101-52-7	20 - 40
C.I. Pigment Brown 33	68186-88-9	5 - <10
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.
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.

FG00733 - Semi-Moist Underglazes - Suntan

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 Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Conditions for safe storage, including any incompatibilities 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
Silicic acid (H4SiO4),	STEL: 10 mg/m ³ Zr	TWA: 5 mg/m ³ Zr	IDLH: 25 mg/m ³ Zr
zirconium(4+) salt (1:1)	TWA: 5 mg/m ³ Zr	(vacated) TWA: 5 mg/m ³ Zr	TWA: 5 mg/m ³ except Zirconium
10101-52-7		(vacated) STEL: 10 mg/m ³ Zr	tetrachloride Zr
			STEL: 10 mg/m ³ Zr
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
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/m³ 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 TWA: 1 mg/m ³ Cu dust and mist	(vacated) STEL: 10 mg/m ³ Zr (vacated) Ceiling: 5 mg/m ³	IDLH: 500 mg/m ³ Mn 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	u	IDLH: 10 mg/m ³ Ni
	of cobalt		Ceiling: 0.002 mg/m ³ 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
		T IA(A FO ()	STEL: 10 mg/m ³ Zr
Quartz	TWA: 0.025 mg/m ³ respirable	TWA: 50 μ g/m ³	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 : (250)/(%SiO2 + 5) mppcf	dust
		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	5
	respirable particulate matter	(vacated) TWA: 10 mg/m ³ total	
		dust	
		(vacated) TWA: 5 mg/m ³	
		respirable fraction	
1,2,3-Propanetriol	-	TWA: 15 mg/m ³ mist, total	
56-81-5		particulate	
		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, su	ch as personal protective equipment	
Eye/face protection	No special protective equipment required.	
Skin and body protection	No special protective equipment required.	
Description and estimation	No sector the construction of the sector devices and the construction of the sector of	
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 Property Values рΗ Meltin Initial Flash Evapo Flamn Flamn Upp limi Low limi Vapor Relativ

<u>Property</u>	<u>Values</u>	Remarks • Method
pH	No data available	None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling rang	eNo 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	No data available	
limits		
Lower flammability or explosive	No data available	
limits		
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

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	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

ATEmix (oral)	1,472.60 mg/kg
ATEmix (dermal)	22,805.00 mg/kg
ATEmix (inhalation-dust/mist)	19.80 mg/l

Unknown acute toxicity

197.73 % 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	-	-
Frits, chemicals 65997-18-4	A1 A3 A2	Group 1 Group 2B Group 2A	Known Reasonably Anticipated	Х
Quartz 14808-60-7	A2	Group 1	Known	Х

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)		

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
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
C.I. Pigment Brown 33	68186-88-9	Present	Active

FG00733 - Semi-Moist Underglazes - Suntan

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
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
C.I. Pigment Brown 35	68187-09-7	Present	Active
C.I. Pigment Yellow 159	68187-15-5	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	-	-

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	-	-	Х
C.I. Pigment Brown 33 68186-88-9	Х	-	Х
Frits, chemicals 65997-18-4	Х	-	Х
Feldspar 68476-25-5	Х	-	Х
Kaolin 1332-58-7	Х	X	Х
Quartz 14808-60-7	Х	X	Х
1,2,3-Propanetriol 56-81-5	Х	X	Х
C.I. Pigment Brown 35 68187-09-7	Х	-	Х

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information						
NFPA HMIS	Health hazards 1 Health hazards * 2	Flammability 0 Flammability 0		bility 0 ical hazards	0	Special hazards - Personal protection X
	eviations and acronyms uposure controls/personal		ata sheet			
TWA TWA	A (time-weighted average) imum limit value	STEI *	-	STEL (Short Skin designa		Exposure Limit)
Agency for Toxic Substa U.S. Environmental Prof European Food Safety A EPA (Environmental Prof Acute Exposure Guidelin U.S. Environmental Prof U.S. Environmental Prof Food Research Journal Hazardous Substance D International Uniform Ch National Institute of Tec Australia National Indus NIOSH (National Institut National Library of Medi National Library of Medi National Toxicology Pro New Zealand's Chemica Organization for Econor	Detection Agency) ne Level(s) (AEGL(s)) tection Agency Federal Ins tection Agency High Produ Database nemical Information Databa hnology and Evaluation (N trial Chemicals Notification te for Occupational Safety a cine's ChemID Plus (NLM cine's PubMed database (I	y (ATSDR) Database ecticide, Fungicide, ction Volume Chemi ase (IUCLID) ITE) and Assessment So and Health) CIP) NLM PUBMED) ation Database (CC lopment Environment	and Rodentici cals cheme (NICN D) nt, Health, and	AS) d Safety Publi		

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 i	n this Safety Data Shee

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





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

170.6 % 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.

<u>Mixture</u>

Chemical name	CAS No	Weight-%
C.I. Pigment Green 51	68553-01-5	10 - 20
Frits, chemicals	65997-18-4	5 - <10
Quartz	14808-60-7	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. CAUTION: Use of water spray when fighting fire may be inefficient.	
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.	
0 0	No information available.	
Specific hazards arising from the chemical		
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 Green 51	-	TWA: 0.5 mg/m ³ Cr	IDLH: 25 mg/m ³ Cr(III)
68553-01-5		(vacated) TWA: 0.5 mg/m ³ Cr	TWA: 0.5 mg/m ³ Cr
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/m³ 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 TWA: 3 mg/m ³ W respirable	(vacated) Ceiling: 5 mg/m ³ Ceiling: 5 mg/m ³ Mn	IDLH: 25 mg/m ³ Zr IDLH: 100 mg/m ³ Pb
	particulate matter in the absence		IDLH: 10 mg/m ³ Ni
	of cobalt		Ceiling: 0.002 mg/m ³ 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
Ou carta		T\N/A - 50	STEL: 10 mg/m ³ Zr
Quartz 14808-60-7	TWA: 0.025 mg/m ³ respirable particulate matter	TWA: 50 µg/m³ (vacated) TWA: 0.1 mg/m³	IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable
14808-00-7		respirable dust	dust
		: (250)/(%SiO2 + 5) mppcf	dust
		TWA respirable fraction	
		$(10)/(\%SiO2 + 2) \text{ mg/m}^{3}$	
		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	
1,2,3-Propanetriol	-	TWA: 15 mg/m ³ mist, total	-
56-81-5		particulate	
		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

Appropriate engineering controls

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

Engineering controls	Showers Eyewash stations Ventilation systems.
Individual protection measures, suc	ch 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

Property_	Values_	Remarks • Method
pH	No data available	None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	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	No data available	
limits		
Lower flammability or explosive	No data available	
limits		
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

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

Product Information

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	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

lo 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)
 1,048.70 mg/kg

 ATEmix (dermal)
 16,420.40 mg/kg

 ATEmix (inhalation-dust/mist)
 14.70 mg/l

Unknown acute toxicity

170.6 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
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/irritationNo information available.Serious eye damage/eye irritationNo information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity

No information available.

ACCIH (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 3 - Not Classifiable as to Carcinogenicity in Humans MTP (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 Paproductive toxicity No information available. FOT - single exposure No information available. FOT - repeated exposure May cause damage to organs through prolonged or repeated exposure. arget 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). spiration hazard No information available.	Chemical name	ACGIH	IARC	NTP	OSHA
Frits, chemicals A1 Group 2B Known X G997-18-4 A2 Group 2A Reasonably Anticipated X Quartz A2 Group 2A Reasonably Anticipated X gend ACGHI (American Conference of Governmental Industrial Hygienists) X X A1 - Known Human Carcinogen A2 Group 1 Known X A2 - Suspected Human Carcinogen A3 - Animal Carcinogen A3 - Animal Carcinogen A A3 - Animal Carcinogen IARC (International Agency for Research on Cancer) Group 2 - Probably Carcinogenic to Humans Group 2 - Probably Carcinogenic to Humans Group 2 - Probably Carcinogenic to Humans Group 2 - Probably Carcinogenic to Humans Group 3 - Not Classifield is as to Carcinogenicity in Humans MTP (National Toxicology Program) Known - Known Carcinogen Reasonably Anticipated to be a Human Carcinogen OSHA (Occupational Safety and Health Administration of the US Department of Labor) X - Present Peroductive toxicity No information available. FOT - single exposure No information available. FOT - repeated exposure May cause damage to organs through prolonged or repeated exposure. urget organ effects Liver, Kidney, Respira	•	-	Group 3	-	-
65997-18-4 A3 A2 Group 2A Group 2A Reasonably Anticipated Quartz A2 Group 1 Known X 14808-60-7 A2 Group 1 Known X agend ACGH (American Conference of Governmental Industrial Hygienists) A A ACSH (American Conference of Governmental Industrial Hygienists) A A A2 Suspected Human Carcinogen A3 A A3 Animal Carcinogenic to Humans Group 1 Cuartic Control (Control Carcinogenic to Humans) Group 1 Carcinogenic to Humans Group 3- Not Classifiable as to Carcinogenicity in Humans Group 3- Not Classifiable as to Carcinogenicity in Humans MTP (National Toxicology Program) Known Carcinogen Nown Carcinogen Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen OCAuptional Safety and Health Administration of the US Department of Labor) X - Present No information available. Control (Cocupational Safety and Health Administration of the US Department of Labor) TOT - single exposure No information available. May cause damage to organs through prolonged or repeated exposure. arget organ effects Liver, Kidney, Respirator		A1	Group 1	Known	Х
A2 Group 2A Known Quartz A2 Group 1 Known 14808-60-7 Group 1 Known X egend ACGIH (American Conference of Governmental Industrial Hygienists) X A1 - Known Human Carcinogen A3 - Animal Carcinogen X A3 - Animal Carcinogen IARC (International Agency for Research on Cancer) Group 2A - Probably Carcinogenic to Humans Group 2A - Probably Carcinogenic to Humans Group 2B - Possibly Carcinogenic to Humans Group 2B - Possibly Carcinogenic to Humans Group 2B - Possibly Carcinogenic to Humans Group 2B - Possibly Carcinogenic to Humans Group 2B - Possibly Carcinogenic to Humans MTP (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 eproductive toxicity No information available. TOT - single exposure TOT - repeated exposure May cause damage to organs through prolonged or repeated exposure. arget organ effects Liver, Kidney, Respiratory system, Eyes, Skin, Central nervous system, Blood, Centra Vascular System (CVS), Lungs, Nasal Cavities, Lymphatic System, prostate, Gastrointestinal tract (GI).<				_	
14808-60-7 sigend ACCIH (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 2 - Carcinogenic to Humans Group 2 - Prosbibly Carcinogenic to Humans Group 2 - Prosbibly Carcinogenic to Humans Group 2 - 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 Paproductive toxicity No information available. FOT - single exposure No information available. FOT - repeated exposure May cause damage to organs through prolonged or repeated exposure. arget organ effects Liver, Kidney, Respiratory system, Eyes, Skin, Central nervous system, prostate, Gastrointestinal tract (GI). spiration hazard No information available.		A2			
accolit (American Conference of Governmental Industrial Hygienists) A1 - Known Human Carcinogen A2 - Suspected Human Carcinogen A3 - Animal Carcinogen A3 - Animal Carcinogen A3 - Animal Carcinogenic to Humans Group 1 - Carcinogenic to Humans Group 28 - Possibly Carcinogenic to Humans Group 28 - Possibly Carcinogenic to Humans Group 3 - Not Classifiable as to Carcinogenenicty 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 Port - single exposure No information available. FOT - repeated exposure May cause damage to organs through prolonged or repeated exposure. arget organ effects Liver, Kidney, Respiratory system, Eyes, Skin, Central nervous system, Blood, Centra Vascular System (CVS), Lungs, Nasal Cavities, Lymphatic System, prostate, Gastrointestinal tract (GI). spiration hazard No information available.	Quartz	A2	Group 1	Known	Х
ACCIH (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 3 - Not Classifiable as to Carcinogenicity in Humans MTP (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 Paproductive toxicity No information available. FOT - single exposure No information available. FOT - repeated exposure May cause damage to organs through prolonged or repeated exposure. arget 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). spiration hazard No information available.	14808-60-7				
TOT - single exposureNo information available.TOT - repeated exposureMay cause damage to organs through prolonged or repeated exposure.arget organ effectsLiver, Kidney, Respiratory system, Eyes, Skin, Central nervous system, Blood, Central Vascular System (CVS), Lungs, Nasal Cavities, Lymphatic System, prostate, Gastrointestinal tract (GI).spiration hazardNo information available.ther adverse effectsNo information available.	Group 2B - Possibly Carcino Group 3 - Not Classifiable a NTP (National Toxicology Known - Known Carcinogen Reasonably Anticipated - Ro OSHA (Occupational Safe	ogenic to Humans s to Carcinogenicity Program) easonably Anticipate	ed to be a Human Carci	nogen Department of Labor)	
TOT - repeated exposureMay cause damage to organs through prolonged or repeated exposure.arget organ effectsLiver, Kidney, Respiratory system, Eyes, Skin, Central nervous system, Blood, Central Vascular System (CVS), Lungs, Nasal Cavities, Lymphatic System, prostate, Gastrointestinal tract (GI).spiration hazardNo information available.ther adverse effects	eproductive toxicity	No informati	ion available.		
arget organ effectsLiver, Kidney, Respiratory system, Eyes, Skin, Central nervous system, Blood, Central Vascular System (CVS), Lungs, Nasal Cavities, Lymphatic System, prostate, Gastrointestinal tract (GI).spiration hazardNo information available.ther adverse effects	TOT - single exposure	No informati	No information available.		
Vascular System (CVS), Lungs, Nasal Cavities, Lymphatic System, prostate, Gastrointestinal tract (GI). spiration hazard No information available. ther adverse effects	TOT - repeated exposure	May cause o	May cause damage to organs through prolonged or repeated exposure.		
ther adverse effects	arget organ effects	Vascular Sy			
	spiration hazard	No informati	ion available.		
teractive 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
Water	7732-18-5	Present	Active
C.I. Pigment Green 51	68553-01-5	Present	Inactive
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 EINECS/ELINCS	Contact supplier for inventory compliance status. 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 Green 51 - 68553-01-5	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
C.I. Pigment Green 51 68553-01-5	-	Х	-	-
Frits, chemicals 65997-18-4	-	Х	-	-

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	-	-	Х
7732-18-5			
C.I. Pigment Green 51	X	-	Х

68553-01-5			
Frits, chemicals 65997-18-4	X	-	Х
Feldspar 68476-25-5	Х	-	Х
Kaolin 1332-58-7	X	Х	Х
Quartz 14808-60-7	X	Х	Х
1,2,3-Propanetriol 56-81-5	X	Х	Х

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other info	rmation					
NFPA HMIS	Health hazards Health hazards		mability 0 mability 0	Instability 0 Physical hazards	Special hazards - 0 Personal protection X	
Legend Section 8 TWA	TWA (time-weighted ave	rsonal protec		STEL (Short		
Revision date Revision Note <u>Disclaimer</u>	01-Fe	eb-2024				

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