SAFETY DATA SHEET

Revision date 09-Nov-2022

1. Identification		
Product identifier		
Product Name	O-10 Transparent Pearl	
Other means of identification		
Product Code(s)	FG00347	
UN number or ID number	UN3082	
Synonyms	38660S	
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
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin sensitization	Category 1
Specific target organ toxicity (repeated exposure)	Category 2

Hazards not otherwise classified (HNOC)

Not applicable

Label elements



Revision Number 1

Hazard statements Warning

H302 - Harmful if swallowed H317 - May cause an allergic skin reaction H332 - Harmful if inhaled H373 - May cause damage to organs through prolonged or repeated exposure



Physical state Liquid

Precautionary Statements - Prevention Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Use only outdoors or in a well-ventilated area Contaminated work clothing must not be allowed out of the workplace Wear protective gloves Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

Specific treatment (see .? on this label) Get medical advice/attention if you feel unwell IF ON SKIN: Wash with plenty of water and soap If skin irritation or rash occurs: Get medical advice/attention Wash contaminated clothing before reuse IF INHALED: Remove person to fresh air and keep comfortable for breathing Call a doctor 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

4.707 % of the mixture consists of ingredient(s) of unknown acute oral toxicity 14.207 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Other information

Toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

3. Composition/information on ingredients

Not applicable.

Mixture

Chemical name	CAS No	Weight-%
Frits, chemicals	65997-18-4	20 - 40
Kaolin	1332-58-7	5 - <10
Quartz	14808-60-7	3 - <5
Zinc oxide (ZnO)	1314-13-2	1 - <3
Calcium fluoride (CaF2)	7789-75-5	1 - <3
1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol	4719-04-4	0.1 - 1

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. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately.	
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.	
Skin contact	Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.	
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention.	
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing vapors or mists. Use personal protective equipment as required. See section 8 for more information.	
Most important symptoms and effects, both acute and delayed		
Symptoms	Itching. Rashes. Hives. Coughing and/ or wheezing. Difficulty in breathing.	
Indication of any immediate medical attention and special treatment needed		
Note to physicians	May cause sensitization in susceptible persons. 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	Product is or contains a sensitizer. May cause sensitization by skin contact.	
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	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid breathing vapors or mists.
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. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid breathing vapors or mists.

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

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
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		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
			STEL: 10 mg/m ³ Zr
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	
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	
Zinc oxide (ZnO)	STEL: 10 mg/m ³ respirable	TWA: 5 mg/m ³ fume	IDLH: 500 mg/m ³
1314-13-2	particulate matter	TWA: 15 mg/m ³ total dust	Ceiling: 15 mg/m ³ dust
	TWA: 2 mg/m ³ respirable	TWA: 5 mg/m ³ respirable	TWA: 5 mg/m ³ dust and fume
	particulate matter	fraction	STEL: 10 mg/m ³ fume
		(vacated) TWA: 5 mg/m ³ fume	_
		(vacated) TWA: 10 mg/m ³ total	
		dust	
		(vacated) TWA: 5 mg/m ³	
		respirable fraction	
		(vacated) STEL: 10 mg/m ³	
		fume	
Calcium fluoride (CaF2)	TWA: 2.5 mg/m ³ F	TWA: 2.5 mg/m ³ F	IDLH: 250 mg/m ³ F
7789-75-5		(vacated) TWA: 2.5 mg/m ³	TWA: 2.5 mg/m ³ F

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
Calcium fluoride (CaF2)	2 mg/L - urine (Fluoride) - prior to shift
7789-75-5	3 mg/L - urine (Fluoride) - end of shift

Appropriate engineering controls

Engineering controls	Showers
0 0	Eyewash stations
	Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Hand protection	Wear suitable gloves.
Skin and body protection Respiratory protection	Wear suitable protective clothing. 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.

9. Physical and chemical properties

Information on basic physical and chemical properties Liquid

Physical state

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	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	Excessive heat.
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. Harmful by inhalation. (based on components).
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components).

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

Itching. Rashes. Hives. Coughing and/ or wheezing.

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)	307.10 mg/kg
ATEmix (dermal)	5,357.60 mg/kg
ATEmix (inhalation-dust/mist)	3.92 mg/l

Unknown acute toxicity

4.707 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

14.207 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

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)	-
Zinc oxide (ZnO) 1314-13-2	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 5700 mg/m³(Rat)4 h
Calcium fluoride (CaF2) 7789-75-5	= 4250 mg/kg(Rat)	-	> 5070 mg/m³(Rat)4 h
1,3,5-Triazine-1,3,5(2H,4H,6H)-t riethanol 4719-04-4	= 763 mg/kg (Rat)	> 4000 mg/kg (Rat)	= 0.4 mg/L (Rat)4 h = 0.338 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 May cause sensitization by skin contact.

Germ cell mutagenicity No information available.

Carcinogenicity

No information available.

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

			0	
Chemical name	ACGIH	IARC	NTP	OSHA
Frits, chemicals	A1	Group 1	Known	Х
65997-18-4	A3	Group 2B	Reasonably Anticipated	
	A2	Group 2A		
Quartz	A2	Group 1	Known	Х
14808-60-7				
Calcium fluoride (CaF2)	-	Group 3	-	-
7789-75-5				

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

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Zinc oxide (ZnO) 1314-13-2	-	LC50: =1.55mg/L (96h, Danio rerio)	-	-
1,3,5-Triazine-1,3,5(2H,4 H,6H)-triethanol 4719-04-4	-	LC50: =16.07mg/L (96h, Danio rerio)	-	-

Persistence and degradability

Bioaccumulation

There is no data for this product.

Other adverse effects

No information available.

13. Disposal considerations

Disposal methods

Waste from residues/unused

Dispose of waste in accordance with environmental legislation. Dispose of in accordance

products	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

UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III 8, 146, 173, 335, IB3, T4, TP1, TP29 PP Frits, chemicals UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III, Marine pollutant 171
UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III 16, 99 Frits, chemicals, Zinc oxide (ZnO). UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III
UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III Frits, chemicals, Zinc oxide (ZnO) UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III 274, 331, 335
UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III A97, A158, A197, A215
UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III Frits, chemicals, Zinc oxide (ZnO) UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III A97, A158, A197 9L

UN number or ID number UN proper shipping name Transport hazard class(es) Packing group EmS-No Special Provisions Marine pollutant Marine Pollutant Description	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III F-A, S-F 274, 335, 969 P Frits, chemicals, Zinc oxide (ZnO) UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III, Marine pollutant
<u>RID</u>	UN3082
UN number or ID number	Environmentally hazardous substance, liquid, n.o.s.
UN proper shipping name	9
Transport hazard class(es)	III
Packing group	M6
Classification code	274, 335, 375, 601
Special Provisions	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide
Description	(ZnO)), 9, III
ADR	UN3082
UN number or ID number	Environmentally hazardous substance, liquid, n.o.s.
UN proper shipping name	9
Transport hazard class(es)	III
Packing group	M6
Classification code	(-)
Tunnel restriction code	274, 335, 601, 375
Special Provisions	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide
Description	(ZnO)), 9, III, (-)
ADN	UN3082
UN number or ID number	Environmentally hazardous substance, liquid, n.o.s.
UN proper shipping name	9
Transport hazard class(es)	III
Packing group	M6
Classification code	274, 335, 375, 601
Special Provisions	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide
Description	(ZnO)), 9, III
Equipment Requirements	PP

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
Water	7732-18-5	Present	Active
Frits, chemicals	65997-18-4	Present	Active
Kaolin	1332-58-7	Present	Active
Quartz	14808-60-7	Present	Active
Calcium fluoride (CaF2)	7789-75-5	Present	Active
Zinc oxide (ZnO)	1314-13-2	Present	Active
Smectite-group minerals	12199-37-0	Present	Active
Sodium carboxymethyl cellulose	9004-32-4	Present	Active
1,3,5-Triazine-1,3,5(2H,4H,6H)-trietha nol	4719-04-4	Present	Active
Ethanolamine	141-43-5	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

SARA 313

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

Chemical name	SARA 313 - Threshold Values %
Frits, chemicals - 65997-18-4	0.1
	1.0
Zinc oxide (ZnO) - 1314-13-2	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	-	-
Zinc oxide (ZnO) 1314-13-2	-	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

FG00347 - O-10 Transparent Pearl

	· · · · · · · · · · · · · · · · · · ·		
7732-18-5			
Frits, chemicals	X	-	Х
65997-18-4			
Kaolin 1332-58-7	X	Х	Х
Quartz 14808-60-7	X	Х	Х
Calcium fluoride (CaF2) 7789-75-5	X	-	-
Zinc oxide (ZnO) 1314-13-2	X	Х	Х
Ethanolamine 141-43-5	X	Х	Х

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information Health hazards 2 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 09-Nov-2022 **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 date 09-Nov-2022

1. Identification	
Product identifier	
Product Name	O-30 Autumn Leaf
Other means of identification	
Product Code(s)	FG00355
UN number or ID number	UN3082
Synonyms	38664Y
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
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin sensitization	Category 1
Specific target organ toxicity (repeated exposure)	Category 2

Hazards not otherwise classified (HNOC)

Not applicable

Label elements



Revision Number 1

Hazard statements Warning

H302 - Harmful if swallowed H317 - May cause an allergic skin reaction H332 - Harmful if inhaled H373 - May cause damage to organs through prolonged or repeated exposure



Physical state Liquid

Precautionary Statements - Prevention Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Use only outdoors or in a well-ventilated area Contaminated work clothing must not be allowed out of the workplace Wear protective gloves Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

Specific treatment (see .? on this label) Get medical advice/attention if you feel unwell IF ON SKIN: Wash with plenty of water and soap If skin irritation or rash occurs: Get medical advice/attention Wash contaminated clothing before reuse IF INHALED: Remove person to fresh air and keep comfortable for breathing Call a doctor 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

4.707 % of the mixture consists of ingredient(s) of unknown acute oral toxicity 15.807 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Other information

Toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

3. Composition/information on ingredients

Not applicable.

Mixture

Chemical name	CAS No	Weight-%
Frits, chemicals	65997-18-4	20 - 40
Kaolin	1332-58-7	5 - <10
Quartz	14808-60-7	3 - <5
Zinc oxide (ZnO)	1314-13-2	1 - <3
Calcium fluoride (CaF2)	7789-75-5	1 - <3
1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol	4719-04-4	0.1 - 1

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. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately.	
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.	
Skin contact	Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.	
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention.	
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing vapors or mists. Use personal protective equipment as required. See section 8 for more information.	
Most important symptoms and effe	cts, both acute and delayed	
Symptoms	Itching. Rashes. Hives. Coughing and/ or wheezing. Difficulty in breathing.	
Indication of any immediate medical attention and special treatment needed		
Note to physicians	May cause sensitization in susceptible persons. 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	Product is or contains a sensitizer. May cause sensitization by skin contact.
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	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid breathing vapors or mists.
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. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid breathing vapors or mists.

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

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
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		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/m³ 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
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	
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	
Zinc oxide (ZnO)	STEL: 10 mg/m ³ respirable	TWA: 5 mg/m ³ fume	IDLH: 500 mg/m ³
1314-13-2	particulate matter	TWA: 15 mg/m ³ total dust	Ceiling: 15 mg/m ³ dust
	TWA: 2 mg/m ³ respirable	TWA: 5 mg/m ³ respirable	TWA: 5 mg/m ³ dust and fume
	particulate matter	fraction	STEL: 10 mg/m ³ fume
		(vacated) TWA: 5 mg/m ³ fume	-
		(vacated) TWA: 10 mg/m ³ total	
		dust	
		(vacated) TWA: 5 mg/m ³	
		respirable fraction	
		(vacated) STEL: 10 mg/m ³	
		fume	
Calcium fluoride (CaF2)	TWA: 2.5 mg/m ³ F	TWA: 2.5 mg/m ³ F	IDLH: 250 mg/m ³ F
7789-75-5		(vacated) TWA: 2.5 mg/m ³	TWA: 2.5 mg/m ³ F

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
Calcium fluoride (CaF2)	2 mg/L - urine (Fluoride) - prior to shift
7789-75-5	3 mg/L - urine (Fluoride) - end of shift

Appropriate engineering controls

Engineering controls	Showers
0	Eyewash stations
	Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Hand protection	Wear suitable gloves.
Skin and body protection Respiratory protection	Wear suitable protective clothing. 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.

9. Physical and chemical properties

Information on basic physical and chemical properties Liquid

Physical state

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	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	Excessive heat.
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. Harmful by inhalation. (based on components).
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components).

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

Itching. Rashes. Hives. Coughing and/ or wheezing.

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)	327.00 mg/kg
ATEmix (dermal)	5,660.90 mg/kg
ATEmix (inhalation-dust/mist)	4.09 mg/l

Unknown acute toxicity

4.707 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

15.807 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

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)	-
Zinc oxide (ZnO) 1314-13-2	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 5700 mg/m³(Rat)4 h
Calcium fluoride (CaF2) 7789-75-5	= 4250 mg/kg(Rat)	-	> 5070 mg/m³(Rat)4 h
1,3,5-Triazine-1,3,5(2H,4H,6H)-t riethanol 4719-04-4	= 763 mg/kg (Rat)	> 4000 mg/kg (Rat)	= 0.4 mg/L (Rat)4 h = 0.338 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 May cause sensitization by skin contact.

Germ cell mutagenicity No information available.

Carcinogenicity

No information available.

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

			0	
Chemical name	ACGIH	IARC	NTP	OSHA
Frits, chemicals	A1	Group 1	Known	Х
65997-18-4	A3	Group 2B	Reasonably Anticipated	
	A2	Group 2A		
Quartz	A2	Group 1	Known	Х
14808-60-7				
Calcium fluoride (CaF2)	-	Group 3	-	-
7789-75-5				

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

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Zinc oxide (ZnO) 1314-13-2	-	LC50: =1.55mg/L (96h, Danio rerio)	-	-
1,3,5-Triazine-1,3,5(2H,4 H,6H)-triethanol 4719-04-4	-	LC50: =16.07mg/L (96h, Danio rerio)	-	-

Persistence and degradability

Bioaccumulation

There is no data for this product.

Other adverse effects

No information available.

13. Disposal considerations

Disposal methods

Waste from residues/unused

Dispose of waste in accordance with environmental legislation. Dispose of in accordance

products	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

	UN number or ID number Proper shipping name Transport hazard class(es) Packing group Special Provisions DOT Marine Pollutant Marine pollutant Description Emergency Response Guide Number	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III 8, 146, 173, 335, IB3, T4, TP1, TP29 PP Frits, chemicals UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III, Marine pollutant 171
<u>TD</u>	G UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Special Provisions Marine pollutant name Description	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III 16, 99 Frits, chemicals, Zinc oxide (ZnO). UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III
ME	X UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Technical Name Description Special Provisions	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III Frits, chemicals, Zinc oxide (ZnO) UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III 274, 331, 335
<u>IC</u>	AO (air) UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Description Special Provisions	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III A97, A158, A197, A215
	TA UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Technical Name Description Special Provisions ERG Code	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III Frits, chemicals, Zinc oxide (ZnO) UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III A97, A158, A197 9L
1141		

UN number or ID number UN proper shipping name Transport hazard class(es) Packing group EmS-No Special Provisions Marine pollutant Marine Pollutant Description	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III F-A, S-F 274, 335, 969 P Frits, chemicals, Zinc oxide (ZnO) UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III, Marine pollutant
<u>RID</u>	
UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Classification code Special Provisions Description	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III M6 274, 335, 375, 601 UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III
ADR	
UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Classification code Tunnel restriction code Special Provisions Description	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III M6 (-) 274, 335, 601, 375 UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III, (-)
ADN_	
UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Classification code Special Provisions Description Equipment Requirements	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III M6 274, 335, 375, 601 UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III PP

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
Water	7732-18-5	Present	Active
Frits, chemicals	65997-18-4	Present	Active
Kaolin	1332-58-7	Present	Active
Quartz	14808-60-7	Present	Active
Zinc oxide (ZnO)	1314-13-2	Present	Active
Calcium fluoride (CaF2)	7789-75-5	Present	Active
Iron oxide (Fe3O4)	1317-61-9	Present	Active
Smectite-group minerals	12199-37-0	Present	Active
Sodium carboxymethyl cellulose	9004-32-4	Present	Active
Limestone	1317-65-3	Present	Active
1,3,5-Triazine-1,3,5(2H,4H,6H)-trietha	4719-04-4	Present	Active

FG00355 - O-30 Autumn Leaf

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
nol			
Ethanolamine	141-43-5	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	
Zinc oxide (ZnO) - 1314-13-2	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	-	-
Zinc oxide (ZnO) 1314-13-2	-	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 7732-18-5	-	-	Х
Frits, chemicals 65997-18-4	X	-	Х
Kaolin 1332-58-7	X	Х	Х
Quartz 14808-60-7	X	Х	Х
Zinc oxide (ZnO) 1314-13-2	X	Х	Х
Calcium fluoride (CaF2) 7789-75-5	X	-	-
Limestone 1317-65-3	X	Х	Х
Ethanolamine 141-43-5	X	Х	Х

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other infor	mation			
NFPA HMIS	Health hazards 2 Health hazards 2 *	Flammability 0 Flammability 0	Instability 0 Physical hazards 0	Special hazards - Personal protection X
Legend Section 8: TWA T Ceiling M Key literature refere Agency for Toxic Sul U.S. Environmental F European Food Safe EPA (Environmental Acute Exposure Guid U.S. Environmental F U.S. Environmental F Food Research Journ Hazardous Substand International Uniform National Institute of T Australia National Inst National Institute of T Australia National Inst National Library of M National Library of M National Toxicology I New Zealand's Chem	Protection Agency) deline Level(s) (AEGL(s)) Protection Agency Federal Ins Protection Agency High Produ nal ce Database Chemical Information Databa Fechnology and Evaluation (N dustrial Chemicals Notification titute for Occupational Safety ledicine's ChemID Plus (NLM ledicine's PubMed database (Il protection STEL * used to compile the SE (ATSDR) Database secticide, Fungicide, and uction Volume Chemicals ase (IUCLID) IITE) n and Assessment Scher and Health) CIP) NLM PUBMED) nation Database (CCID) elopment Environment, F	STEL (Short Terr Skin designation PS Rodenticide Act ne (NICNAS)	
Organization for Eco World Health Organi: Revision date Revision Note	nomic Co-operation and Deve zation 09-Nov-20		mation Data Set	
Disclaimer The information pro	ovided in this Safety Data Sl	heet is correct to the b	est of our knowledge, infor	mation 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 date 09-Nov-2022

1. Identification		
Product identifier		
Product Name	O-42 Moss Green	
Other means of identification		
Product Code(s)	FG00356	
UN number or ID number	UN3082	
Synonyms	38635P	
Recommended use of the chemica	l 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 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin sensitization	Category 1
Carcinogenicity	Category 1B
Reproductive toxicity	Category 1B
Specific target organ toxicity (repeated exposure)	Category 2

Hazards not otherwise classified (HNOC)

Not applicable



Revision Number 1

Label elements

Hazard statements	
Danger	
H301 - Toxic if swallowed	
H317 - May cause an allergic skin reaction	
H332 - Harmful if inhaled	
H350 - May cause cancer	
H360 - May damage fertility or the unborn child	
H373 - May cause damage to organs through prolonged or repeated exposure	

Physical state Liquid 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 Use only outdoors or in a well-ventilated area Contaminated work clothing must not be allowed out of the workplace Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention Specific treatment (see .? on this label) Specific treatment (see .? on this label) IF ON SKIN: Wash with plenty of water and soap If skin irritation or rash occurs: Get medical advice/attention Wash contaminated clothing before reuse IF INHALED: Remove person to fresh air and keep comfortable for breathing IF SWALLOWED: Immediately call a doctor Rinse mouth

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal Dispose of contents/container to an approved waste disposal plant

Unknown acute toxicity

8.897 % of the mixture consists of ingredient(s) of unknown acute oral toxicity 22.247 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Other information

May be harmful in contact with skin. Toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

3. Composition/information on ingredients

Not applicable.

Mixture

FG00356 - O-42 Moss Green

Chemical name	CAS No	Weight-%
Frits, chemicals	65997-18-4	20 - 40
Kaolin	1332-58-7	10 - 20
Quartz	14808-60-7	5 - <10
Iron oxide (Fe2O3)	1309-37-1	1 - <3
Boric acid (H3BO3)	10043-35-3	0.1 - 1
1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol	4719-04-4	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. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately.		
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.		
Skin contact	Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.		
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention.		
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing vapors or mists. Use personal protective equipment as required. See section 8 for more information.		
Most important symptoms and effects, both acute and delayed			
Symptoms	Itching. Rashes. Hives. Coughing and/ or wheezing. Difficulty in breathing.		
Indication of any immediate medical attention and special treatment needed			

Note to physicians May cause sensitization in susceptible persons. 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	Product is or contains a sensitizer. May cause sensitization by skin contact.		
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.		

Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid breathing vapors or mists.	
Other information	Refer to protective measures listed in Sections 7 and 8.	
Methods and material for cont	ainment 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. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Remove contaminated clothing and shoes. Avoid breathing vapors or mists.

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. Store locked up.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
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		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		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
			STEL: 10 mg/m ³ Zr
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	
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	
Iron oxide (Fe2O3)	TWA: 5 mg/m ³ respirable	TWA: 10 mg/m ³ fume	IDLH: 2500 mg/m ³ Fe dust and
1309-37-1	particulate matter	TWA: 15 mg/m ³ total dust	
		TWA: 5 mg/m ³ respirable	TWA: 5 mg/m ³ Fe dust and
		fraction	fume
		(vacated) TWA: 10 mg/m ³ fume and total dust Iron oxide	
		(vacated) TWA: 5 mg/m ³	
		respirable fraction regulated	
		under Rouge	
Boric acid (H3BO3)	STEL: 6 mg/m ³ inhalable	under Ködge	
10043-35-3	particulate matter	-	-
10043-33-3	TWA: 2 mg/m ³ inhalable		
	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

Appropriate engineering controls

Engineering controls	Showers Eyewash stations Ventilation systems.
Individual protection measures, suc	ch as personal protective equipment
Eye/face protection	Wear safety glasses with side shields (or goggles).
Hand protection	Wear suitable gloves.
Skin and body protection Respiratory protection	Wear suitable protective clothing. 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 Liquid
Appearance
Color
Odor
Odor threshold
Property Values

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	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	

10. Stability and reactivity

VOC Content (%)

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

No information available

Information on likely routes of exposure

11. Toxicological information

Product Information

Inhalation

Specific test data for the substance or mixture is not available. Harmful by inhalation. (based

	on components).
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). May be harmful in contact with skin.
Ingestion	Specific test data for the substance or mixture is not available. Toxic if swallowed. (based on components).
Symptoms related to the r	hysical chemical and toxicological characteristics

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms

Itching. Rashes. Hives. Coughing and/ or wheezing.

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)	282.80 mg/kg
ATEmix (dermal)	4,496.50 mg/kg
ATEmix (inhalation-dust/mist)	3.32 mg/l

Unknown acute toxicity

8.897 % of the mixture consists of ingredient(s) of unknown acute oral toxicity 22.247 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

65997-18-4

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)	-
Iron oxide (Fe2O3) 1309-37-1	> 10000 mg/kg (Rat)	-	-
Boric acid (H3BO3) 10043-35-3	= 2660 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2.12 mg/L (Rat)4 h
1,3,5-Triazine-1,3,5(2H,4H,6H)-t riethanol 4719-04-4	= 763 mg/kg (Rat)	> 4000 mg/kg (Rat)	= 0.4 mg/L (Rat)4 h = 0.338 mg/L (Rat)4 h

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

A3 A2

Skin corrosion/irritation	No informatio	No information available.			
Serious eye damage/eye irritation	No information	No information available.			
Respiratory or skin sensitization	May cause s	May cause sensitization by skin contact.			
Germ cell mutagenicity	No information available.				
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	
Frits, chemicals	A1	Group 1	Known	Х	

Group 2B

Group 2A

Reasonably Anticipated

Quartz	A2	Group 1	Known	Х				
14808-60-7								
Iron oxide (Fe2O3)	-	Group 3	-	-				
1309-37-1				X				
Boric acid (H3BO3)	-	Group 2A	-	Х				
Legend	10043-35-3							
	nference of Governmen	tal Industrial Hygienists)						
A1 - Known Human Ca		tai muustnai riygiemstsy						
A2 - Suspected Humar								
A3 - Animal Carcinoge	n							
IARC (International A	gency for Research on (Cancer)						
Group 1 - Carcinogenie								
	arcinogenic to Humans							
	arcinogenic to Humans	·						
	ble as to Carcinogenicity	in Humans						
NTP (National Toxico Known - Known Carcir								
		d to be a Human Carcinog	100					
OSHA (Occupational	Safety and Health Admi	nistration of the US Depa	artment of Labor)					
X - Present	Callety and Health Admin							
Reproductive toxicity Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child.								
TOT - single exposure No information available.								
STOT - repeated exposur	ure May cause damage to organs through prolonged or repeated exposure.							
Target organ effects	Vascular Sys	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	No information available.						
Other adverse effects								
Interactive effects								

12. Ecological information

Ecotoxicity

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea
			microorganisms	
Iron oxide (Fe2O3)	-	LC50: =100000mg/L (96h,	-	-
1309-37-1		Danio rerio)		
Boric acid (H3BO3)	-	-	-	EC50: 115 - 153mg/L
10043-35-3				(48h, Daphnia magna)
1,3,5-Triazine-1,3,5(2H,4	-	LC50: =16.07mg/L (96h,	-	-
H,6H)-triethanol		Danio rerio)		
4719-04-4				

Persistence and degradability

Bioaccumulation

Component Information

Chemical name		Partition coefficient		
B	oric acid (H3BO3)	-0.757		
	10043-35-3			

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

DOT UN number or ID number Proper shipping name Transport hazard class(es) Packing group Special Provisions DOT Marine Pollutant Marine pollutant Description Emergency Response Guide Number	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III 8, 146, 173, 335, IB3, T4, TP1, TP29 PP Frits, chemicals UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III, Marine pollutant 171
TDG UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Special Provisions Marine pollutant name Description	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III 16, 99 Frits, chemicals. UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III
MEX UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Technical Name Description Special Provisions	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III Frits, chemicals UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III 274, 331, 335
<u>ICAO (air)</u> UN number or ID number UN proper shipping name Transport hazard class(es)	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9

Packing group Description Special Provisions	III UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III A97, A158, A197, A215
ATA UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Technical Name Description Special Provisions ERG Code	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III Frits, chemicals UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III A97, A158, A197 9L
MDG UN number or ID number UN proper shipping name Transport hazard class(es) Packing group EmS-No Special Provisions Marine pollutant Marine Pollutant Description	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III F-A, S-F 274, 335, 969 P Frits, chemicals UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III, Marine pollutant
RID UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Classification code Special Provisions Description	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III M6 274, 335, 375, 601 UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III
ADR UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Classification code Tunnel restriction code Special Provisions Description	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III M6 (-) 274, 335, 601, 375 UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III, (-)
ADN UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Classification code Special Provisions Description Equipment Requirements	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III M6 274, 335, 375, 601 UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III PP

15. Regulatory information

International Inventories

TSCA

Contact supplier for inventory compliance status.

FG00356 - O-42 Moss Green

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Water	7732-18-5	Present	Active
Frits, chemicals	65997-18-4	Present	Active
Kaolin	1332-58-7	Present	Active
Quartz	14808-60-7	Present	Active
Iron oxide (Fe2O3)	1309-37-1	Present	Active
Boric acid (H3BO3)	10043-35-3	Present	Active
Sodium carboxymethyl cellulose	9004-32-4	Present	Active
Hematite, chromium green black	68909-79-5	Present	Active
1,3,5-Triazine-1,3,5(2H,4H,6H)-trietha nol	4719-04-4	Present	Active
Smectite-group minerals	12199-37-0	Present	Active
Ethanolamine	141-43-5	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	

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	-	-

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive

Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
Frits, chemicals 65997-18-4	Х	-	X
Kaolin 1332-58-7	Х	X	X
Quartz 14808-60-7	Х	X	X
Iron oxide (Fe2O3) 1309-37-1	Х	X	Х
Boric acid (H3BO3) 10043-35-3	Х	-	-
Hematite, chromium green black 68909-79-5	Х	-	Х
Ethanolamine 141-43-5	Х	X	Х

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information					
NFPA HMIS Chronic Hazard Star	Health hazards 2 Health hazards 2 r Legend *= Chu		-	Instability 0 Physical hazards 0	Special hazards - Personal protection X
Key or legend to abbreviations and acronyms used in the safety data sheetLegend Section 8: Exposure controls/personal protectionTWATWA (time-weighted average)STELCeilingMaximum limit value*StructureSter					
Agency for Toxic S U.S. Environmenta European Food Sa EPA (Environmenta Acute Exposure G U.S. Environmenta U.S. Environmenta Food Research Jo Hazardous Substa International Unifo National Institute of Australia National NIOSH (National I National Library of National Library of National Toxicolog		egistry (ATSDR) View Database al Insecticide, Fungi Production Volume C atabase (IUCLID) on (NITE) cation and Assessme afety and Health) NLM CIP) ase (NLM PUBMED	cide, and Ro Chemicals ent Scheme)	odenticide Act	

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 Disclaimer

09-Nov-2022

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 brent

Revision Number 1

Revision date 09-Nov-2022

1. Identification	
Product identifier	
Product Name	O-52 Fuchsia
Other means of identification	
Product Code(s)	FG00357
UN number or ID number	UN3082
Synonyms	38636B
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
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin sensitization	Category 1
Specific target organ toxicity (repeated exposure)	Category 2

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Hazard statements Warning

H302 - Harmful if swallowed H317 - May cause an allergic skin reaction H332 - Harmful if inhaled H373 - May cause damage to organs through prolonged or repeated exposure



Physical state Liquid

Precautionary Statements - Prevention Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Use only outdoors or in a well-ventilated area Contaminated work clothing must not be allowed out of the workplace Wear protective gloves Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

Specific treatment (see .? on this label) Get medical advice/attention if you feel unwell IF ON SKIN: Wash with plenty of water and soap If skin irritation or rash occurs: Get medical advice/attention Wash contaminated clothing before reuse IF INHALED: Remove person to fresh air and keep comfortable for breathing Call a doctor 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

8.557 % of the mixture consists of ingredient(s) of unknown acute oral toxicity 18.057 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Other information

Toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

3. Composition/information on ingredients

Not applicable.

Mixture

Chemical name	CAS No	Weight-%
Frits, chemicals	65997-18-4	20 - 40
Kaolin	1332-58-7	5 - <10
Quartz	14808-60-7	3 - <5
C.I. Pigment Red 233	68187-12-2	3 - <5
Zinc oxide (ZnO)	1314-13-2	1 - <3
Calcium fluoride (CaF2)	7789-75-5	1 - <3

1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol	4719-04-4	0.1 - 1

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. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately.

- Eye contactRinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.
Consult a physician.
- Skin contactWash with soap and water. May cause an allergic skin reaction. In the case of skin irritation
or allergic reactions see a physician.
- Ingestion Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention.
- **Self-protection of the first aider** Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing vapors or mists. Use personal protective equipment as required. See section 8 for more information.

Most important symptoms and effects, both acute and delayed

Symptoms	Itching. Rashes. Hives. Coughing and/ or wheezing. Difficulty in breathing.		
Indication of any immediate medical attention and special treatment needed			
Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.		

5. Fire-fighting measures

precautions for fire-fighters

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	Product is or contains a sensitizer. May cause sensitization by skin contact.	
Explosion data Sensitivity to mechanical impac	t None.	
Sensitivity to static discharge	None.	
Special protective equipment and	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.	

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid breathing vapors or mists.

Use personal protection equipment.

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. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid breathing vapors or mists.

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

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
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		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/m³ 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

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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
1002 00 7	and <1% crystalline silica,	fraction	
	respirable particulate matter	(vacated) TWA: 10 mg/m ³ total	
		dust	
		(vacated) TWA: 5 mg/m ³	
		respirable fraction	
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	
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
Zinc oxide (ZnO)	STEL: 10 mg/m ³ respirable	TWA: 5 mg/m ³ fume	IDLH: 500 mg/m ³
1314-13-2	particulate matter	TWA: 15 mg/m ³ total dust	Ceiling: 15 mg/m ³ dust
	TWA: 2 mg/m ³ respirable	TWA: 5 mg/m ³ respirable	TWA: 5 mg/m ³ dust and fume
	particulate matter	fraction	STEL: 10 mg/m ³ fume
		(vacated) TWA: 5 mg/m ³ fume	
		(vacated) TWA: 10 mg/m ³ total	
		dust	
		(vacated) TWA: 5 mg/m ³	
		respirable fraction	
		(vacated) STEL: 10 mg/m ³	
Calcium fluoride (CaF2)	TWA: 2.5 mg/m ³ F	TWA: 2.5 mg/m ³ F	IDLH: 250 mg/m ³ F
7789-75-5		(vacated) TWA: 2.5 mg/m ³	TWA: 2.5 mg/m ³ F

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
	2 mg/L - urine (Fluoride) - prior to shift 3 mg/L - urine (Fluoride) - end of shift

Appropriate engineering controls

Engineering controls	Showers
	Eyewash stations
	Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
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.

9. Physical and chemical properties

Information on basic physical and chemical properties
Physical state
Liquid
Appearance
Color
Odor
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	Excessive heat.
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. Harmful by inhalation. (based on components).
Eye contact	Specific test data for the substance or mixture is not available.

Skin contact	May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Harmful if swallowed. (based on components).
Symptoms related to the ph	veical chemical and toxicological characteristics

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms

Itching. Rashes. Hives. Coughing and/ or wheezing.

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)	348.20 mg/kg
ATEmix (dermal)	5,343.10 mg/kg
ATEmix (inhalation-dust/mist)	4.24 mg/l

Unknown acute toxicity

8.557 % of the mixture consists of ingredient(s) of unknown acute oral toxicity 18.057 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

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)	-
C.I. Pigment Red 233 68187-12-2	-	-	> 5.4 mg/L (Rat)4 h
Zinc oxide (ZnO) 1314-13-2	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 5700 mg/m³(Rat)4 h
Calcium fluoride (CaF2) 7789-75-5	= 4250 mg/kg (Rat)	-	> 5070 mg/m³(Rat)4 h
1,3,5-Triazine-1,3,5(2H,4H,6H)-t riethanol 4719-04-4	= 763 mg/kg (Rat)	> 4000 mg/kg (Rat)	= 0.4 mg/L (Rat)4 h = 0.338 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	May cause sensitization by skin contact.
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
Frits, chemicals	A1	Group 1	Known	Х
65997-18-4	A3	Group 2B	Reasonably Anticipated	
	A2	Group 2A		
Quartz	A2	Group 1	Known	Х
14808-60-7				
C.I. Pigment Red 233	-	Group 3	-	-

			· · · · · · · · · · · · · · · · · · ·	
68187-12-2				
Calcium fluoride (CaF2)	-	Group 3	-	-
7789-75-5				
ACGIH (American Conferend A1 - Known Human Carcinoge A2 - Suspected Human Carcir A3 - Animal Carcinogen IARC (International Agency 1) Group 1 - Carcinogenic to Hur Group 2A - Probably Carcinog Group 2B - Possibly Carcinog Group 3 - Not Classifiable as t NTP (National Toxicology Pr Known - Known Carcinogen Reasonably Anticipated - Rea OSHA (Occupational Safety X - Present	n ogen for Research on Car nans enic to Humans enic to Humans o Carcinogenicity in H ogram) sonably Anticipated to	n cer) Humans o be a Human Carcin	ogen	
Reproductive toxicity	No information a	available.		
STOT - single exposure	No information a	available.		
STOT - repeated exposure	May cause damage to organs through prolonged or repeated exposure.			
Target organ effects		n (CVS), Lungs, Nas	yes, Skin, Central nervous s al Cavities, Lymphatic Syste	
Aspiration hazard	No information a	available.		
Other adverse effects				
Interactive effects				

12. Ecological information

Ecotoxicity

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Zinc oxide (ZnO) 1314-13-2	-	LC50: =1.55mg/L (96h, Danio rerio)	-	-
1,3,5-Triazine-1,3,5(2H,4 H,6H)-triethanol 4719-04-4	-	LC50: =16.07mg/L (96h, Danio rerio)	-	-

Persistence and degradability

Bioaccumulation	There is no data for this product.

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

DOT UN number or ID number Proper shipping name Transport hazard class(es) Packing group Special Provisions DOT Marine Pollutant Marine pollutant Description Emergency Response Guide Number	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III 8, 146, 173, 335, IB3, T4, TP1, TP29 PP Frits, chemicals UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III, Marine pollutant 171
TDG	UN3082
UN number or ID number	Environmentally hazardous substance, liquid, n.o.s.
UN proper shipping name	9
Transport hazard class(es)	III
Packing group	16, 99
Special Provisions	Frits, chemicals, Zinc oxide (ZnO).
Marine pollutant name	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide
Description	(ZnO)), 9, III
MEX	UN3082
UN number or ID number	Environmentally hazardous substance, liquid, n.o.s.
UN proper shipping name	9
Transport hazard class(es)	III
Packing group	Frits, chemicals, Zinc oxide (ZnO)
Technical Name	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide
Description	(ZnO)), 9, III
Special Provisions	274, 331, 335
ICAO (air)	UN3082
UN number or ID number	Environmentally hazardous substance, liquid, n.o.s.
UN proper shipping name	9
Transport hazard class(es)	III
Packing group	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide
Description	(ZnO)), 9, III
Special Provisions	A97, A158, A197, A215
IATA UN number or ID number UN proper shipping name	UN3082 Environmentally hazardous substance, liquid, n.o.s.

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Transport hazard class(es) Packing group	9
Technical Name	Frits, chemicals, Zinc oxide (ZnO)
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III
Special Provisions ERG Code	A97, A158, A197 9L
IMDG	
UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	
EmS-No	F-A, S-F
Special Provisions	274, 335, 969
Marine pollutant	P
Marine Pollutant	Frits, chemicals, Zinc oxide (ZnO)
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III, Marine pollutant
RID	
UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	
Classification code	M6
Special Provisions	274, 335, 375, 601
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III
ADR	
UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	
Classification code	M6
Tunnel restriction code	(-)
Special Provisions	274, 335, 601, 375
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III, (-)
ADN	
	UN3082
UN number or ID number	UN3082 Environmentally bazardous substance, liquid, n.o.s.
UN number or ID number UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
UN number or ID number UN proper shipping name Transport hazard class(es)	Environmentally hazardous substance, liquid, n.o.s. 9
UN number or ID number UN proper shipping name Transport hazard class(es) Packing group	Environmentally hazardous substance, liquid, n.o.s. 9 III
UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Classification code	Environmentally hazardous substance, liquid, n.o.s. 9 III M6
UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Classification code Special Provisions	Environmentally hazardous substance, liquid, n.o.s. 9 III M6 274, 335, 375, 601
UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Classification code	Environmentally hazardous substance, liquid, n.o.s. 9 III M6 274, 335, 375, 601 UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide
UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Classification code Special Provisions	Environmentally hazardous substance, liquid, n.o.s. 9 III M6

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	
Water	7732-18-5	Present	Active	
Frits, chemicals	65997-18-4	Present	Active	

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Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Kaolin	1332-58-7	Present	Active
Quartz	14808-60-7	Present	Active
C.I. Pigment Red 233	68187-12-2	Present	Active
Zinc oxide (ZnO)	1314-13-2	Present	Active
Calcium fluoride (CaF2)	7789-75-5	Present	Active
Sodium carboxymethyl cellulose	9004-32-4	Present	Active
Smectite-group minerals	12199-37-0	Present	Active
1,3,5-Triazine-1,3,5(2H,4H,6H)-trietha 4719-04-4		Present	Active
nol			
Ethanolamine	141-43-5	Present	Active

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

Legend:

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

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

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

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances **PICCS** - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Industrial Chemicals

NZIOC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

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

Chemical name	SARA 313 - Threshold Values %		
Frits, chemicals - 65997-18-4	0.1		
	1.0		
C.I. Pigment Red 233 - 68187-12-2	1.0		
Zinc oxide (ZnO) - 1314-13-2	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	-	-
C.I. Pigment Red 233 68187-12-2	-	Х	-	-
Zinc oxide (ZnO)	-	Х	-	-

1314-13-2				

<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 7732-18-5	-	-	Х
Frits, chemicals 65997-18-4	X	-	Х
Kaolin 1332-58-7	X	Х	Х
Quartz 14808-60-7	X	X	Х
C.I. Pigment Red 233 68187-12-2	X	-	Х
Zinc oxide (ZnO) 1314-13-2	X	Х	Х
Calcium fluoride (CaF2) 7789-75-5	X	-	-
Ethanolamine 141-43-5	X	Х	Х

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information							
<u>NFPA</u> HMIS	Health hazards 2 Health hazards 2 *	Flammability Flammability		Instability 0 Physical hazards 0	Special hazards $\ \ -$ Personal protection $\ \ X$		
Agency for Toxic S U.S. Environmenta European Food Sa EPA (Environmenta Acute Exposure G U.S. Environmenta U.S. Environmenta Food Research Jo Hazardous Substa International Unifo National Institute of Australia National NIOSH (National In		y (ATSDR) Database ecticide, Fungicide ction Volume Che use (IUCLID) ITE) and Assessment and Health)	le, and Ro emicals				

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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

09-Nov-2022

Revision date Revision Note <u>Disclaimer</u>

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

End of Safety Data Sheet

SAFETY DATA SHEET

Revision date 09-Nov-2022

1. Identification		
Product identifier		
Product Name	O-54 Dusty Rose	
Other means of identification		
Product Code(s)	FG00358	
UN number or ID number	UN3082	
Synonyms	38667C	
Recommended use of the chemica	l 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
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin sensitization	Category 1
Specific target organ toxicity (repeated exposure)	Category 2

Hazards not otherwise classified (HNOC)

Not applicable

Label elements



Revision Number 1

Hazard statements Warning

H302 - Harmful if swallowed H317 - May cause an allergic skin reaction H332 - Harmful if inhaled H373 - May cause damage to organs through prolonged or repeated exposure



Physical state Liquid

Precautionary Statements - Prevention Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Use only outdoors or in a well-ventilated area Contaminated work clothing must not be allowed out of the workplace Wear protective gloves Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

Specific treatment (see .? on this label) Get medical advice/attention if you feel unwell IF ON SKIN: Wash with plenty of water and soap If skin irritation or rash occurs: Get medical advice/attention Wash contaminated clothing before reuse IF INHALED: Remove person to fresh air and keep comfortable for breathing Call a doctor 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

8.207 % of the mixture consists of ingredient(s) of unknown acute oral toxicity 17.707 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Other information

Toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

3. Composition/information on ingredients

Not applicable.

Mixture

Chemical name	CAS No	Weight-%
Frits, chemicals	65997-18-4	20 - 40
Kaolin	1332-58-7	5 - <10
Quartz	14808-60-7	3 - <5
Zinc oxide (ZnO)	1314-13-2	1 - <3
Limestone	1317-65-3	1 - <3
Calcium fluoride (CaF2)	7789-75-5	1 - <3

C.I. Pigment Red 233	68187-12-2	1 - <3
1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol	4719-04-4	0.1 - 1

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. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately.		
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.		
Skin contact	Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.		
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention.		
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing vapors or mists. Use personal protective equipment as required. See section 8 for more information.		
Most important symptoms and effects, both acute and delayed			
Symptoms	Itching. Rashes. Hives. Coughing and/ or wheezing. Difficulty in breathing.		
Indication of any immediate medical attention and special treatment needed			
Note to physicians	May cause sensitization in susceptible persons. 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	Product is or contains a sensitizer. May cause sensitization by skin contact.	
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 Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid breathing vapors or mists.

Other information	Refer to protective measures listed in Sections 7 and 8.		
Methods and material for conta	inment 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. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid breathing vapors or mists.

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

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
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		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

			STEL: 10 mg/m ³ Zr
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	
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	
Zinc oxide (ZnO)	STEL: 10 mg/m ³ respirable	TWA: 5 mg/m ³ fume	IDLH: 500 mg/m ³
1314-13-2	particulate matter	TWA: 15 mg/m ³ total dust	Ceiling: 15 mg/m ³ dust
	TWA: 2 mg/m ³ respirable	TWA: 5 mg/m ³ respirable	TWA: 5 mg/m ³ dust and fume
	particulate matter	fraction	STEL: 10 mg/m ³ fume
		(vacated) TWA: 5 mg/m ³ fume	
		(vacated) TWA: 10 mg/m ³ total dust	
		(vacated) TWA: 5 mg/m ³ respirable fraction	
		(vacated) STEL: 10 mg/m ³	
		fume	
Limestone		TWA: 15 mg/m ³ total dust	TWA: 10 mg/m ³ total dust
1317-65-3	-	TWA: 5 mg/m ³ respirable	TWA: 5 mg/m ³ respirable dust
1317-03-3		fraction	TWA. 5 mg/m* Tespirable dust
		(vacated) TWA: 15 mg/m ³ total	
		dust	
		(vacated) TWA: 5 mg/m ³	
		respirable fraction	
Calcium fluoride (CaF2)	TWA: 2.5 mg/m ³ F	TWA: 2.5 mg/m ³ F	IDLH: 250 mg/m ³ F
7789-75-5		(vacated) TWA: 2.5 mg/m ³	TWA: 2.5 mg/m ³ F
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

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
Calcium fluoride (CaF2)	2 mg/L - urine (Fluoride) - prior to shift
7789-75-5	3 mg/L - urine (Fluoride) - end of shift

Appropriate engineering controls

Engineering controls	Showers Eyewash stations Ventilation systems.
Individual protection measures, su	ch as personal protective equipment
Eye/face protection	Wear safety glasses with side shields (or goggles).
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.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
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	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	

No information available

10. Stability and reactivity

VOC Content (%)

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Excessive heat.
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. Harmful by inhalation. (based on components).
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components).
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

Itching. Rashes. Hives. Coughing and/ or wheezing.

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)	344.00 mg/kg
ATEmix (dermal)	5,308.50 mg/kg
ATEmix (inhalation-dust/mist)	4.20 mg/l

Unknown acute toxicity

8.207 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

17.707 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

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)	-
Zinc oxide (ZnO) 1314-13-2	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 5700 mg/m³(Rat)4 h
Calcium fluoride (CaF2) 7789-75-5	= 4250 mg/kg (Rat)	-	> 5070 mg/m³(Rat)4 h
C.I. Pigment Red 233 68187-12-2	-	-	> 5.4 mg/L (Rat)4 h
1,3,5-Triazine-1,3,5(2H,4H,6H)-t riethanol 4719-04-4	= 763 mg/kg (Rat)	> 4000 mg/kg (Rat)	= 0.4 mg/L (Rat)4 h = 0.338 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 sensitizationMay cause sensitization by skin contact.Germ cell mutagenicityNo information available.CarcinogenicityNo information available.

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

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Chemical name	ACGIH	IARC	NTP	OSHA
Frits, chemicals	A1	Group 1	Known	Х
65997-18-4	A3	Group 2B	Reasonably Anticipated	
	A2	Group 2A		
Quartz	A2	Group 1	Known	Х
14808-60-7				
Calcium fluoride (CaF2)	-	Group 3	-	-
7789-75-5				
C.I. Pigment Red 233	-	Group 3	-	-
68187-12-2				

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

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Zinc oxide (ZnO) 1314-13-2	-	LC50: =1.55mg/L (96h, Danio rerio)	-	-
1,3,5-Triazine-1,3,5(2H,4 H,6H)-triethanol 4719-04-4	-	LC50: =16.07mg/L (96h, Danio rerio)	-	-

Persistence and degradability

Bioaccumulation	There is no data for this product.

Other adverse effects No information available.

13. Disposal col	nsiderations
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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 UN number or ID number Proper shipping name Transport hazard class(es) Packing group Special Provisions DOT Marine Pollutant Marine pollutant Description Emergency Response Guide Number	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III 8, 146, 173, 335, IB3, T4, TP1, TP29 PP Frits, chemicals UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III, Marine pollutant 171
TDG	UN3082
UN number or ID number	Environmentally hazardous substance, liquid, n.o.s.
UN proper shipping name	9
Transport hazard class(es)	III
Packing group	16, 99
Special Provisions	Frits, chemicals, Zinc oxide (ZnO).
Marine pollutant name	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide
Description	(ZnO)), 9, III
MEX	UN3082
UN number or ID number	Environmentally hazardous substance, liquid, n.o.s.
UN proper shipping name	9
Transport hazard class(es)	III
Packing group	Frits, chemicals, Zinc oxide (ZnO)
Technical Name	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide
Description	(ZnO)), 9, III
Special Provisions	274, 331, 335
ICAO (air) UN number or ID number UN proper shipping name Transport hazard class(es) Packing group	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III

Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III
Special Provisions	A97, Á158, A197, A215
IATA	UN3082
UN number or ID number	Environmentally hazardous substance, liquid, n.o.s.
UN proper shipping name	9
Transport hazard class(es)	III
Packing group	Frits, chemicals, Zinc oxide (ZnO)
Technical Name	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide
Description	(ZnO)), 9, III
Special Provisions	A97, A158, A197
ERG Code	9L
IMDG	UN3082
UN number or ID number	Environmentally hazardous substance, liquid, n.o.s.
UN proper shipping name	9
Transport hazard class(es)	III
Packing group	F-A, S-F
EmS-No	274, 335, 969
Special Provisions	P
Marine pollutant	Frits, chemicals, Zinc oxide (ZnO)
Marine Pollutant	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide
Description	(ZnO)), 9, III, Marine pollutant
<u>RID</u>	UN3082
UN number or ID number	Environmentally hazardous substance, liquid, n.o.s.
UN proper shipping name	9
Transport hazard class(es)	III
Packing group	M6
Classification code	274, 335, 375, 601
Special Provisions	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide
Description	(ZnO)), 9, III
ADR	UN3082
UN number or ID number	Environmentally hazardous substance, liquid, n.o.s.
UN proper shipping name	9
Transport hazard class(es)	III
Packing group	M6
Classification code	(-)
Tunnel restriction code	274, 335, 601, 375
Special Provisions	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide
Description	(ZnO)), 9, III, (-)
ADN	UN3082
UN number or ID number	Environmentally hazardous substance, liquid, n.o.s.
UN proper shipping name	9
Transport hazard class(es)	III
Packing group	M6
Classification code	274, 335, 375, 601
Special Provisions	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide
Description	(ZnO)), 9, III
Equipment Requirements	PP

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
Water	7732-18-5	Present	Active
Frits, chemicals	65997-18-4	Present	Active
Kaolin	1332-58-7	Present	Active
Quartz	14808-60-7	Present	Active
Zinc oxide (ZnO)	1314-13-2	Present	Active
Limestone	1317-65-3	Present	Active
Calcium fluoride (CaF2)	7789-75-5	Present	Active
C.I. Pigment Red 233	68187-12-2	Present	Active
Sodium carboxymethyl cellulose	9004-32-4	Present	Active
Smectite-group minerals	12199-37-0	Present	Active
1,3,5-Triazine-1,3,5(2H,4H,6H)-trietha nol	4719-04-4	Present	Active
Ethanolamine	141-43-5	Present	Active

	act supplier for inventory compliance status. act supplier for inventory compliance status.
	act supplier for inventory compliance status.
	act supplier for inventory compliance status.
KECL Conta	act supplier for inventory compliance status.
PICCS Conta	act supplier for inventory compliance status.
AIIC Conta	act supplier for inventory compliance status.
NZIOC Conta	act supplier for inventory compliance status.

Legend:

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

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

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

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances **PICCS** - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Industrial Chemicals

NZIOC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

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

Chemical name	SARA 313 - Threshold Values %
Frits, chemicals - 65997-18-4	0.1
	1.0
Zinc oxide (ZnO) - 1314-13-2	1.0
C.I. Pigment Red 233 - 68187-12-2	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	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous
	Quantities			Substances

Frits, chemicals 65997-18-4	-	Х	-	-
Zinc oxide (ZnO) 1314-13-2	-	Х	-	-
C.I. Pigment Red 233 68187-12-2	-	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
Frits, chemicals 65997-18-4	Х	-	Х
Kaolin 1332-58-7	Х	X	Х
Quartz 14808-60-7	Х	x	Х
Zinc oxide (ZnO) 1314-13-2	Х	X	Х
Limestone 1317-65-3	Х	X	Х
Calcium fluoride (CaF2) 7789-75-5	Х	-	-
C.I. Pigment Red 233 68187-12-2	Х	-	Х
Ethanolamine 141-43-5	Х	X	Х

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other info	ormation				
NFPA HMIS	Health hazards 2 Health hazards 2 *	Flammability Flammability		Instability 0 Physical hazards 0	Special hazards - Personal protection X
	abbreviations and acronym 3: Exposure controls/perso TWA (time-weighted averag	nal protection	t <mark>y data she</mark> TEL	eet STEL (Short Term	Exposure Limit)
Ceiling	Maximum limit value	,c)		Skin designation	
Agency for Toxic S U.S. Environmenta European Food Sa EPA (Environment Acute Exposure G U.S. Environmenta	erences and sources for dat Substances and Disease Regi al Protection Agency ChemVie afety Authority (EFSA) al Protection Agency) uideline Level(s) (AEGL(s)) al Protection Agency Federal al Protection Agency High Pro	istry (ATSDR) ew Database Insecticide, Fungicio	de, and Ro	denticide Act	

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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 Disclaimer 09-Nov-2022

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

End of Safety Data Sheet

SAFETY DATA SHEET

Revision date 09-Nov-2022

1. Identification		
Product identifier		
Product Name	O-57 Mottled Burgundy	
Other means of identification		
Product Code(s)	FG00359	
UN number or ID number	UN3082	
Synonyms	38637R	
Recommended use of the chemica	l 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
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin sensitization	Category 1
Specific target organ toxicity (repeated exposure)	Category 2

Hazards not otherwise classified (HNOC)

Not applicable

Label elements



Revision Number 1

Hazard statements Warning

H302 - Harmful if swallowed H317 - May cause an allergic skin reaction H332 - Harmful if inhaled H373 - May cause damage to organs through prolonged or repeated exposure



Physical state Liquid

Precautionary Statements - Prevention Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Use only outdoors or in a well-ventilated area Contaminated work clothing must not be allowed out of the workplace Wear protective gloves Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

Specific treatment (see .? on this label) Get medical advice/attention if you feel unwell IF ON SKIN: Wash with plenty of water and soap If skin irritation or rash occurs: Get medical advice/attention Wash contaminated clothing before reuse IF INHALED: Remove person to fresh air and keep comfortable for breathing Call a doctor 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

2.7695 % of the mixture consists of ingredient(s) of unknown acute oral toxicity 12.7695 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Other information

Toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

3. Composition/information on ingredients

Not applicable.

Mixture

Chemical name	CAS No	Weight-%
Frits, chemicals	65997-18-4	20 - 40
Kaolin	1332-58-7	5 - <10
Quartz	14808-60-7	1 - <3
Zinc oxide (ZnO)	1314-13-2	1 - <3
Calcium fluoride (CaF2)	7789-75-5	1 - <3
1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol	4719-04-4	0.1 - 1

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. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately.	
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.	
Skin contact	Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.	
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention.	
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing vapors or mists. Use personal protective equipment as required. See section 8 for more information.	
Most important symptoms and effe	cts, both acute and delayed	
Symptoms	Itching. Rashes. Hives. Coughing and/ or wheezing. Difficulty in breathing.	
Indication of any immediate medical attention and special treatment needed		
Note to physicians	May cause sensitization in susceptible persons. 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	Product is or contains a sensitizer. May cause sensitization by skin contact.
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	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid breathing vapors or mists.
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. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid breathing vapors or mists.

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

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
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	(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		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
			STEL: 10 mg/m ³ Zr
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	
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	
Zinc oxide (ZnO)	STEL: 10 mg/m ³ respirable	TWA: 5 mg/m ³ fume	IDLH: 500 mg/m ³
1314-13-2	particulate matter	TWA: 15 mg/m ³ total dust	Ceiling: 15 mg/m ³ dust
	TWA: 2 mg/m ³ respirable	TWA: 5 mg/m ³ respirable	TWA: 5 mg/m ³ dust and fume
	particulate matter	fraction	STEL: 10 mg/m ³ fume
		(vacated) TWA: 5 mg/m ³ fume	_
		(vacated) TWA: 10 mg/m ³ total	
		dust	
		(vacated) TWA: 5 mg/m ³	
		respirable fraction	
		(vacated) STEL: 10 mg/m ³	
		fume	
Calcium fluoride (CaF2)	TWA: 2.5 mg/m ³ F	TWA: 2.5 mg/m ³ F	IDLH: 250 mg/m ³ F
7789-75-5		(vacated) TWA: 2.5 mg/m ³	TWA: 2.5 mg/m ³ F

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
Calcium fluoride (CaF2)	2 mg/L - urine (Fluoride) - prior to shift
7789-75-5	3 mg/L - urine (Fluoride) - end of shift

Appropriate engineering controls

Engineering controls	Showers
0	Eyewash stations
	Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Hand protection	Wear suitable gloves.
Skin and body protection Respiratory protection	Wear suitable protective clothing. 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.

9. Physical and chemical properties

Information on basic physical and chemical properties Liquid

Physical state

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	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	Excessive heat.
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. Harmful by inhalation. (based on components).
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components).

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

Itching. Rashes. Hives. Coughing and/ or wheezing.

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)	312.40 mg/kg
ATEmix (dermal)	5,369.10 mg/kg
ATEmix (inhalation-dust/mist)	4.04 mg/l

Unknown acute toxicity

2.7695 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

12.7695 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

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)	-
Zinc oxide (ZnO) 1314-13-2	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 5700 mg/m³(Rat)4 h
Calcium fluoride (CaF2) 7789-75-5	= 4250 mg/kg(Rat)	-	> 5070 mg/m³(Rat)4 h
1,3,5-Triazine-1,3,5(2H,4H,6H)-t riethanol 4719-04-4	= 763 mg/kg (Rat)	> 4000 mg/kg (Rat)	= 0.4 mg/L (Rat)4 h = 0.338 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 May cause sensitization by skin contact.

Germ cell mutagenicity No information available.

Carcinogenicity

No information available.

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

			0	
Chemical name	ACGIH	IARC	NTP	OSHA
Frits, chemicals	A1	Group 1	Known	Х
65997-18-4	A3	Group 2B	Reasonably Anticipated	
	A2	Group 2A		
Quartz	A2	Group 1	Known	Х
14808-60-7				
Calcium fluoride (CaF2)	-	Group 3	-	-
7789-75-5				

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

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Zinc oxide (ZnO) 1314-13-2	-	LC50: =1.55mg/L (96h, Danio rerio)	-	-
1,3,5-Triazine-1,3,5(2H,4 H,6H)-triethanol 4719-04-4	-	LC50: =16.07mg/L (96h, Danio rerio)	-	-

Persistence and degradability

Bioaccumulation

There is no data for this product.

Other adverse effects

No information available.

13. Disposal considerations

Disposal methods

Waste from residues/unused

Dispose of waste in accordance with environmental legislation. Dispose of in accordance

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products	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

Proper sh Transport Packing g Special P DOT Mari Marine po Descriptio	rovisions ne Pollutant ollutant	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III 8, 146, 173, 335, IB3, T4, TP1, TP29 PP Frits, chemicals UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III, Marine pollutant 171
TDG UN numb	er or ID number	UN3082
UN prope Transport Packing g Special P	r shipping name t hazard class(es) group rovisions bllutant name	Environmentally hazardous substance, liquid, n.o.s. 9 III 16, 99 Frits, chemicals, Zinc oxide (ZnO). UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III
MEX		
UN numb UN prope	I Name on	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III Frits, chemicals, Zinc oxide (ZnO) UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III 274, 331, 335
UN prope	on	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III A97, A158, A197, A215
ΙΑΤΑ		
UN numb UN prope Transport Packing <u>c</u> Technical Descriptic Special P	I Name on rovisions	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III Frits, chemicals, Zinc oxide (ZnO) UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III A97, A158, A197
ERG Cod	e	9L
<u>IMDG</u>		

UN number or ID number UN proper shipping name Transport hazard class(es) Packing group EmS-No Special Provisions Marine pollutant Marine Pollutant Description	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III F-A, S-F 274, 335, 969 P Frits, chemicals, Zinc oxide (ZnO) UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III, Marine pollutant
<u>RID</u>	
UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Classification code Special Provisions Description	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III M6 274, 335, 375, 601 UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III
ADR	
UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Classification code Tunnel restriction code Special Provisions Description	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III M6 (-) 274, 335, 601, 375 UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III, (-)
ADN	
UN number or ID number UN proper shipping name Transport hazard class(es) Packing group Classification code Special Provisions Description Equipment Requirements	UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III M6 274, 335, 375, 601 UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III PP

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
Water	7732-18-5	Present	Active
Frits, chemicals	65997-18-4	Present	Active
Kaolin	1332-58-7	Present	Active
Quartz	14808-60-7	Present	Active
Zinc oxide (ZnO)	1314-13-2	Present	Active
Calcium fluoride (CaF2)	7789-75-5	Present	Active
Iron oxide (Fe2O3)	1309-37-1	Present	Active
Smectite-group minerals	12199-37-0	Present	Active
Sodium carboxymethyl cellulose	9004-32-4	Present	Active
Manganese	7439-96-5	Present	Active
C.I. Pigment Brown 33	68186-88-9	Present	Active

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Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
1,3,5-Triazine-1,3,5(2H,4H,6H)-trietha nol	4719-04-4	Present	Active
Aluminum oxide (Al2O3)	1344-28-1	Present	Active
Barium oxide	1304-28-5	Present	Active
Ethanolamine	141-43-5	Present	Active

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

Legend:

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

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

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

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Industrial Chemicals

NZIOC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

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

Chemical name	SARA 313 - Threshold Values %	
Frits, chemicals - 65997-18-4	0.1	
	1.0	
Zinc oxide (ZnO) - 1314-13-2	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	-	-
Zinc oxide (ZnO) 1314-13-2	-	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 7732-18-5	-	-	Х
Frits, chemicals 65997-18-4	Х	-	Х
Kaolin 1332-58-7	Х	X	Х
Quartz 14808-60-7	Х	X	Х
Zinc oxide (ZnO) 1314-13-2	Х	X	Х
Calcium fluoride (CaF2) 7789-75-5	Х	-	-
Iron oxide (Fe2O3) 1309-37-1	Х	Х	Х
Manganese 7439-96-5	Х	X	Х
C.I. Pigment Brown 33 68186-88-9	Х	-	Х
Aluminum oxide (Al2O3) 1344-28-1	Х	X	Х
Barium oxide 1304-28-5	Х	-	Х
Ethanolamine 141-43-5	Х	X	Х

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information								
NFPA HMIS	Health hazards 2 Health hazards 2 *	Flammability Flammability		Instability 0 Physical hazards 0	Special hazards - Personal protection X			
Key or legend to abbreviations and acronyms used in the safety data sheet Legend Section 8: Exposure controls/personal protection								
			STEL	STEL (Short Term Exposure Limit) 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 Revision Note Disclaimer 09-Nov-2022

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