

SAFETY DATA SHEET



Revision date 09-Nov-2022

Revision Number 1

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

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 (CaF ₂)	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.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.
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5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	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 65997-18-4	STEL: 10 mg/m ³ Zr TWA: 0.01 mg/m ³ As TWA: 0.05 mg/m ³ Pb TWA: 0.01 mg/m ³ Cd TWA: 0.002 mg/m ³ Cd respirable particulate matter TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and mist TWA: 3 mg/m ³ W respirable particulate matter in the absence of cobalt TWA: 5 mg/m ³ Zr TWA: 0.02 mg/m ³ Mn respirable particulate matter TWA: 0.1 mg/m ³ Mn inhalable particulate matter	TWA: 10 µg/m ³ As TWA: 50 µg/m ³ Pb TWA: 0.5 mg/m ³ Sb TWA: 5 mg/m ³ Zr (vacated) TWA: 0.5 mg/m ³ Sb (vacated) TWA: 5 mg/m ³ Zr (vacated) STEL: 10 mg/m ³ Zr (vacated) Ceiling: 5 mg/m ³ Ceiling: 5 mg/m ³ Mn	IDLH: 5 mg/m ³ As IDLH: 9 mg/m ³ Cd dust and fume IDLH: 50 mg/m ³ Sb IDLH: 100 mg/m ³ Cu dust and mist IDLH: 500 mg/m ³ Mn IDLH: 25 mg/m ³ Zr IDLH: 100 mg/m ³ Pb IDLH: 10 mg/m ³ Ni Ceiling: 0.002 mg/m ³ As 15 min Ceiling: 0.05 mg/m ³ V dust and fume 15 min TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and mist TWA: 1 mg/m ³ 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 and <1% crystalline silica, respirable particulate matter	TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 5 mg/m ³ respirable dust
Quartz 14808-60-7	TWA: 0.025 mg/m ³ respirable particulate matter	TWA: 50 µg/m ³ (vacated) TWA: 0.1 mg/m ³ respirable dust : (250)/(%SiO ₂ + 5) mppcf TWA respirable fraction : (10)/(%SiO ₂ + 2) mg/m ³ TWA respirable fraction	IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust
Zinc oxide (ZnO) 1314-13-2	STEL: 10 mg/m ³ respirable particulate matter TWA: 2 mg/m ³ respirable particulate matter	TWA: 5 mg/m ³ fume TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (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	IDLH: 500 mg/m ³ Ceiling: 15 mg/m ³ dust TWA: 5 mg/m ³ dust and fume STEL: 10 mg/m ³ fume
Calcium fluoride (CaF ₂) 7789-75-5	TWA: 2.5 mg/m ³ F	TWA: 2.5 mg/m ³ F (vacated) TWA: 2.5 mg/m ³	IDLH: 250 mg/m ³ F TWA: 2.5 mg/m ³ F

Biological occupational exposure limits

Chemical name	ACGIH
Frits, chemicals 65997-18-4	200 µg/L - blood (Lead) - not critical 5 µg/g creatinine - urine (Cadmium) - not critical 5 µg/L - blood (Cadmium) - not critical
Calcium fluoride (CaF ₂) 7789-75-5	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.
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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
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Appearance
Color
Odor
Odor threshold

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Relative vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
<u>Other information</u>		
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/m ³ (Rat) 4 h
Calcium fluoride (CaF ₂) 7789-75-5	= 4250 mg/kg (Rat)	-	> 5070 mg/m ³ (Rat) 4 h
1,3,5-Triazine-1,3,5-(2H,4H,6H)-triethanol 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 65997-18-4	A1 A3 A2	Group 1 Group 2B Group 2A	Known Reasonably Anticipated	X
Quartz 14808-60-7	A2	Group 1	Known	X
Calcium fluoride (CaF ₂) 7789-75-5	-	Group 3	-	-

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	UN3082
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Special Provisions	8, 146, 173, 335, IB3, T4, TP1, TP29
DOT Marine Pollutant	PP
Marine pollutant	Frits, chemicals
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III, Marine pollutant
Emergency Response Guide Number	171

TDG

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Special Provisions	16, 99
Marine pollutant name	Frits, chemicals, Zinc oxide (ZnO).
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III

MEX

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
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	274, 331, 335

ICAO (air)

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III
Special Provisions	A97, A158, A197, A215

IATA

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
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	A97, A158, A197
ERG Code	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	III
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	III
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	III
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

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
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
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 (CaF ₂)	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)-triethanol	4719-04-4	Present	Active
Ethanolamine	141-43-5	Present	Active

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

Legend:**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**AIIC** - Australian Inventory of Industrial Chemicals**NZIoC** - New Zealand Inventory of Chemicals**US Federal Regulations****SARA 313**

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

Chemical name	SARA 313 - Threshold Values %
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	-	X	-	-
Zinc oxide (ZnO) 1314-13-2	-	X	-	-

CERCLA

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

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

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water	-	-	X

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

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

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

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

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

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

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

Revision date 09-Nov-2022

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

Revision Number 1

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

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 (CaF ₂)	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.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.
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5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	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 65997-18-4	STEL: 10 mg/m ³ Zr TWA: 0.01 mg/m ³ As TWA: 0.05 mg/m ³ Pb TWA: 0.01 mg/m ³ Cd TWA: 0.002 mg/m ³ Cd respirable particulate matter TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and mist TWA: 3 mg/m ³ W respirable particulate matter in the absence of cobalt TWA: 5 mg/m ³ Zr TWA: 0.02 mg/m ³ Mn respirable particulate matter TWA: 0.1 mg/m ³ Mn inhalable particulate matter	TWA: 10 µg/m ³ As TWA: 50 µg/m ³ Pb TWA: 0.5 mg/m ³ Sb TWA: 5 mg/m ³ Zr (vacated) TWA: 0.5 mg/m ³ Sb (vacated) TWA: 5 mg/m ³ Zr (vacated) STEL: 10 mg/m ³ Zr (vacated) Ceiling: 5 mg/m ³ Ceiling: 5 mg/m ³ Mn	IDLH: 5 mg/m ³ As IDLH: 9 mg/m ³ Cd dust and fume IDLH: 50 mg/m ³ Sb IDLH: 100 mg/m ³ Cu dust and mist IDLH: 500 mg/m ³ Mn IDLH: 25 mg/m ³ Zr IDLH: 100 mg/m ³ Pb IDLH: 10 mg/m ³ Ni Ceiling: 0.002 mg/m ³ As 15 min Ceiling: 0.05 mg/m ³ V dust and fume 15 min TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and mist TWA: 1 mg/m ³ 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 and <1% crystalline silica, respirable particulate matter	TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 5 mg/m ³ respirable dust
Quartz 14808-60-7	TWA: 0.025 mg/m ³ respirable particulate matter	TWA: 50 µg/m ³ (vacated) TWA: 0.1 mg/m ³ respirable dust : (250)/(%SiO ₂ + 5) mppcf TWA respirable fraction : (10)/(%SiO ₂ + 2) mg/m ³ TWA respirable fraction	IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust
Zinc oxide (ZnO) 1314-13-2	STEL: 10 mg/m ³ respirable particulate matter TWA: 2 mg/m ³ respirable particulate matter	TWA: 5 mg/m ³ fume TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (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	IDLH: 500 mg/m ³ Ceiling: 15 mg/m ³ dust TWA: 5 mg/m ³ dust and fume STEL: 10 mg/m ³ fume
Calcium fluoride (CaF ₂) 7789-75-5	TWA: 2.5 mg/m ³ F	TWA: 2.5 mg/m ³ F (vacated) TWA: 2.5 mg/m ³	IDLH: 250 mg/m ³ F TWA: 2.5 mg/m ³ F

Biological occupational exposure limits

Chemical name	ACGIH
Frits, chemicals 65997-18-4	200 µg/L - blood (Lead) - not critical 5 µg/g creatinine - urine (Cadmium) - not critical 5 µg/L - blood (Cadmium) - not critical
Calcium fluoride (CaF ₂) 7789-75-5	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.
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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
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Appearance
Color
Odor
Odor threshold

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Relative vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
<u>Other information</u>		
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/m ³ (Rat) 4 h
Calcium fluoride (CaF ₂) 7789-75-5	= 4250 mg/kg (Rat)	-	> 5070 mg/m ³ (Rat) 4 h
1,3,5-Triazine-1,3,5-(2H,4H,6H)-triethanol 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 65997-18-4	A1 A3 A2	Group 1 Group 2B Group 2A	Known Reasonably Anticipated	X
Quartz 14808-60-7	A2	Group 1	Known	X
Calcium fluoride (CaF ₂) 7789-75-5	-	Group 3	-	-

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	UN3082
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Special Provisions	8, 146, 173, 335, IB3, T4, TP1, TP29
DOT Marine Pollutant	PP
Marine pollutant	Frits, chemicals
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III, Marine pollutant
Emergency Response Guide Number	171

TDG

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Special Provisions	16, 99
Marine pollutant name	Frits, chemicals, Zinc oxide (ZnO).
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III

MEX

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
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	274, 331, 335

ICAO (air)

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III
Special Provisions	A97, A158, A197, A215

IATA

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
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	A97, A158, A197
ERG Code	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 III
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 III
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 III
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

UN number or ID number UN3082
UN proper shipping name Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es) 9
Packing group III
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
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
Calcium fluoride (CaF ₂)	7789-75-5	Present	Active
Iron oxide (Fe ₃ O ₄)	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

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
nol			
Ethanolamine	141-43-5	Present	Active

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

Legend:**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**AIIC** - Australian Inventory of Industrial Chemicals**NZIoC** - New Zealand Inventory of Chemicals**US Federal Regulations****SARA 313**

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

Chemical name	SARA 313 - Threshold Values %
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	-	X	-	-
Zinc oxide (ZnO) 1314-13-2	-	X	-	-

CERCLA

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

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

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
Frits, chemicals 65997-18-4	X	-	X
Kaolin 1332-58-7	X	X	X
Quartz 14808-60-7	X	X	X
Zinc oxide (ZnO) 1314-13-2	X	X	X
Calcium fluoride (CaF ₂) 7789-75-5	X	-	-
Limestone 1317-65-3	X	X	X
Ethanolamine 141-43-5	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

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

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

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

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

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AELG(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 09-Nov-2022

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

Revision Number 1

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 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 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

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

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 (Fe ₂ O ₃)	1309-37-1	1 - <3
Boric acid (H ₃ BO ₃)	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.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.
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5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	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. 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 65997-18-4	STEL: 10 mg/m ³ Zr TWA: 0.01 mg/m ³ As TWA: 0.05 mg/m ³ Pb TWA: 0.01 mg/m ³ Cd TWA: 0.002 mg/m ³ Cd respirable particulate matter TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and mist TWA: 3 mg/m ³ W respirable particulate matter in the absence of cobalt TWA: 5 mg/m ³ Zr TWA: 0.02 mg/m ³ Mn respirable particulate matter TWA: 0.1 mg/m ³ Mn inhalable particulate matter	TWA: 10 µg/m ³ As TWA: 50 µg/m ³ Pb TWA: 0.5 mg/m ³ Sb TWA: 5 mg/m ³ Zr (vacated) TWA: 0.5 mg/m ³ Sb (vacated) TWA: 5 mg/m ³ Zr (vacated) STEL: 10 mg/m ³ Zr (vacated) Ceiling: 5 mg/m ³ Ceiling: 5 mg/m ³ Mn	IDLH: 5 mg/m ³ As IDLH: 9 mg/m ³ Cd dust and fume IDLH: 50 mg/m ³ Sb IDLH: 100 mg/m ³ Cu dust and mist IDLH: 500 mg/m ³ Mn IDLH: 25 mg/m ³ Zr IDLH: 100 mg/m ³ Pb IDLH: 10 mg/m ³ Ni Ceiling: 0.002 mg/m ³ As 15 min Ceiling: 0.05 mg/m ³ V dust and fume 15 min TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and mist

			TWA: 1 mg/m ³ 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 1332-58-7	TWA: 2 mg/m ³ particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust
Quartz 14808-60-7	TWA: 0.025 mg/m ³ respirable particulate matter	TWA: 50 µg/m ³ (vacated) TWA: 0.1 mg/m ³ respirable dust : (250)/(%SiO ₂ + 5) mppcf TWA respirable fraction : (10)/(%SiO ₂ + 2) mg/m ³ TWA respirable fraction	IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust
Iron oxide (Fe ₂ O ₃) 1309-37-1	TWA: 5 mg/m ³ respirable particulate matter	TWA: 10 mg/m ³ fume TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ fume and total dust Iron oxide (vacated) TWA: 5 mg/m ³ respirable fraction regulated under Rouge	IDLH: 2500 mg/m ³ Fe dust and fume TWA: 5 mg/m ³ Fe dust and fume
Boric acid (H ₃ BO ₃) 10043-35-3	STEL: 6 mg/m ³ inhalable particulate matter TWA: 2 mg/m ³ inhalable particulate matter	-	-

Biological occupational exposure limits

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

Appropriate engineering controls**Engineering controls**

Showers
 Eyewash stations
 Ventilation systems.

Individual protection measures, such as personal protective equipment**Eye/face protection**

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

10. Stability and reactivity

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). 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 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

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**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

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 65997-18-4	A1 A3 A2	Group 1 Group 2B Group 2A	Known Reasonably Anticipated	X

Quartz 14808-60-7	A2	Group 1	Known	X
Iron oxide (Fe ₂ O ₃) 1309-37-1	-	Group 3	-	-
Boric acid (H ₃ BO ₃) 10043-35-3	-	Group 2A	-	X

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

A1 - Known Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

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

X - Present

Reproductive toxicity

Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child.

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
Iron oxide (Fe ₂ O ₃) 1309-37-1	-	LC50: =100000mg/L (96h, Danio rerio)	-	-
Boric acid (H ₃ BO ₃) 10043-35-3	-	-	-	EC50: 115 - 153mg/L (48h, Daphnia magna)
1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol 4719-04-4	-	LC50: =16.07mg/L (96h, Danio rerio)	-	-

Persistence and degradability

Bioaccumulation**Component Information**

Chemical name	Partition coefficient
Boric acid (H ₃ BO ₃) 10043-35-3	-0.757

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**

UN number or ID number UN3082
Proper shipping name Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es) 9
Packing group III
Special Provisions 8, 146, 173, 335, IB3, T4, TP1, TP29
DOT Marine Pollutant PP
Marine pollutant Frits, chemicals
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III, Marine pollutant
Emergency Response Guide Number 171

TDG

UN number or ID number UN3082
UN proper shipping name Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es) 9
Packing group III
Special Provisions 16, 99
Marine pollutant name Frits, chemicals.
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III

MEX

UN number or ID number UN3082
UN proper shipping name Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es) 9
Packing group III
Technical Name Frits, chemicals
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III
Special Provisions 274, 331, 335

ICAO (air)

UN number or ID number UN3082
UN proper shipping name Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es) 9

Packing group	III
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III
Special Provisions	A97, A158, A197, A215

IATA

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

ADN

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Classification code	M6
Special Provisions	274, 335, 375, 601
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 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
Iron oxide (Fe ₂ O ₃)	1309-37-1	Present	Active
Boric acid (H ₃ BO ₃)	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)-triethanol	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****SARA 313**

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

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

SARA 311/312 Hazard Categories

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

CWA (Clean Water Act)

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

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

CERCLA

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

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

US State Regulations

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
Frits, chemicals 65997-18-4	X	-	X
Kaolin 1332-58-7	X	X	X
Quartz 14808-60-7	X	X	X
Iron oxide (Fe ₂ O ₃) 1309-37-1	X	X	X
Boric acid (H ₃ BO ₃) 10043-35-3	X	-	-
Hematite, chromium green black 68909-79-5	X	-	X
Ethanolamine 141-43-5	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA	Health hazards 2	Flammability 0	Instability 0	Special hazards -
HMIS	Health hazards 2 *	Flammability 0	Physical hazards 0	Personal protection X
<i>Chronic Hazard Star Legend</i>		<i>* = Chronic Health Hazard</i>		

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) (AELG(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 09-Nov-2022

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

Revision Number 1

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 (CaF ₂)	7789-75-5	1 - <3

1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol	4719-04-4	0.1 - 1
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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.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.
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5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	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.
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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 65997-18-4	STEL: 10 mg/m ³ Zr TWA: 0.01 mg/m ³ As TWA: 0.05 mg/m ³ Pb TWA: 0.01 mg/m ³ Cd TWA: 0.002 mg/m ³ Cd respirable particulate matter TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and mist TWA: 3 mg/m ³ W respirable particulate matter in the absence of cobalt TWA: 5 mg/m ³ Zr TWA: 0.02 mg/m ³ Mn respirable particulate matter TWA: 0.1 mg/m ³ Mn inhalable particulate matter	TWA: 10 µg/m ³ As TWA: 50 µg/m ³ Pb TWA: 0.5 mg/m ³ Sb TWA: 5 mg/m ³ Zr (vacated) TWA: 0.5 mg/m ³ Sb (vacated) TWA: 5 mg/m ³ Zr (vacated) STEL: 10 mg/m ³ Zr (vacated) Ceiling: 5 mg/m ³ Ceiling: 5 mg/m ³ Mn	IDLH: 5 mg/m ³ As IDLH: 9 mg/m ³ Cd dust and fume IDLH: 50 mg/m ³ Sb IDLH: 100 mg/m ³ Cu dust and mist IDLH: 500 mg/m ³ Mn IDLH: 25 mg/m ³ Zr IDLH: 100 mg/m ³ Pb IDLH: 10 mg/m ³ Ni Ceiling: 0.002 mg/m ³ As 15 min Ceiling: 0.05 mg/m ³ V dust and fume 15 min TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and mist TWA: 1 mg/m ³ 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 1332-58-7	TWA: 2 mg/m ³ particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust
Quartz 14808-60-7	TWA: 0.025 mg/m ³ respirable particulate matter	TWA: 50 µg/m ³ (vacated) TWA: 0.1 mg/m ³ respirable dust : (250)/(%SiO ₂ + 5) mppcf TWA respirable fraction : (10)/(%SiO ₂ + 2) mg/m ³ TWA respirable fraction	IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust
C.I. Pigment Red 233 68187-12-2	-	TWA: 0.5 mg/m ³ Cr (vacated) TWA: 0.5 mg/m ³ Cr	IDLH: 25 mg/m ³ Cr(III) TWA: 0.5 mg/m ³ Cr
Zinc oxide (ZnO) 1314-13-2	STEL: 10 mg/m ³ respirable particulate matter TWA: 2 mg/m ³ respirable particulate matter	TWA: 5 mg/m ³ fume TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (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	IDLH: 500 mg/m ³ Ceiling: 15 mg/m ³ dust TWA: 5 mg/m ³ dust and fume STEL: 10 mg/m ³ fume
Calcium fluoride (CaF ₂) 7789-75-5	TWA: 2.5 mg/m ³ F	TWA: 2.5 mg/m ³ F (vacated) TWA: 2.5 mg/m ³	IDLH: 250 mg/m ³ F TWA: 2.5 mg/m ³ F

Biological occupational exposure limits

Chemical name	ACGIH
Frits, chemicals 65997-18-4	200 µg/L - blood (Lead) - not critical 5 µg/g creatinine - urine (Cadmium) - not critical 5 µg/L - blood (Cadmium) - not critical
Calcium fluoride (CaF ₂) 7789-75-5	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.
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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 threshold

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

Other information

Explosive properties No information available

Oxidizing properties No information available

VOC Content (%) No information available

10. Stability and reactivity

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) 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/m ³ (Rat) 4 h
Calcium fluoride (CaF ₂) 7789-75-5	= 4250 mg/kg (Rat)	-	> 5070 mg/m ³ (Rat) 4 h
1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol 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 65997-18-4	A1 A3 A2	Group 1 Group 2B Group 2A	Known Reasonably Anticipated	X
Quartz 14808-60-7	A2	Group 1	Known	X
C.I. Pigment Red 233	-	Group 3	-	-

68187-12-2				
Calcium fluoride (CaF ₂) 7789-75-5	-	Group 3	-	-

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,4H,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

UN number or ID number	UN3082
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Special Provisions	8, 146, 173, 335, IB3, T4, TP1, TP29
DOT Marine Pollutant	PP
Marine pollutant	Frits, chemicals
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III, Marine pollutant
Emergency Response Guide Number	171

TDG

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Special Provisions	16, 99
Marine pollutant name	Frits, chemicals, Zinc oxide (ZnO).
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III

MEX

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
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	274, 331, 335

ICAO (air)

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III
Special Provisions	A97, A158, A197, A215

IATA

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.

Transport hazard class(es)	9
Packing group	III
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	A97, A158, A197
ERG Code	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	III
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	III
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	III
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

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
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
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

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 (CaF ₂)	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)-triethanol	4719-04-4	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
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	-	X	-	-
C.I. Pigment Red 233 68187-12-2	-	X	-	-
Zinc oxide (ZnO)	-	X	-	-

1314-13-2				
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CERCLA

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

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

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
Frits, chemicals 65997-18-4	X	-	X
Kaolin 1332-58-7	X	X	X
Quartz 14808-60-7	X	X	X
C.I. Pigment Red 233 68187-12-2	X	-	X
Zinc oxide (ZnO) 1314-13-2	X	X	X
Calcium fluoride (CaF ₂) 7789-75-5	X	-	-
Ethanolamine 141-43-5	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

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

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

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

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

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

National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 09-Nov-2022

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

Revision Number 1

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 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

8.207 % 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 (CaF ₂)	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.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.
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5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	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.
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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 65997-18-4	STEL: 10 mg/m ³ Zr TWA: 0.01 mg/m ³ As TWA: 0.05 mg/m ³ Pb TWA: 0.01 mg/m ³ Cd TWA: 0.002 mg/m ³ Cd respirable particulate matter TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and mist TWA: 3 mg/m ³ W respirable particulate matter in the absence of cobalt TWA: 5 mg/m ³ Zr TWA: 0.02 mg/m ³ Mn respirable particulate matter TWA: 0.1 mg/m ³ Mn inhalable particulate matter	TWA: 10 µg/m ³ As TWA: 50 µg/m ³ Pb TWA: 0.5 mg/m ³ Sb TWA: 5 mg/m ³ Zr (vacated) TWA: 0.5 mg/m ³ Sb (vacated) TWA: 5 mg/m ³ Zr (vacated) STEL: 10 mg/m ³ Zr (vacated) Ceiling: 5 mg/m ³ Ceiling: 5 mg/m ³ Mn	IDLH: 5 mg/m ³ As IDLH: 9 mg/m ³ Cd dust and fume IDLH: 50 mg/m ³ Sb IDLH: 100 mg/m ³ Cu dust and mist IDLH: 500 mg/m ³ Mn IDLH: 25 mg/m ³ Zr IDLH: 100 mg/m ³ Pb IDLH: 10 mg/m ³ Ni Ceiling: 0.002 mg/m ³ As 15 min Ceiling: 0.05 mg/m ³ V dust and fume 15 min TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and mist TWA: 1 mg/m ³ 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 1332-58-7	TWA: 2 mg/m ³ particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust
Quartz 14808-60-7	TWA: 0.025 mg/m ³ respirable particulate matter	TWA: 50 µg/m ³ (vacated) TWA: 0.1 mg/m ³ respirable dust : (250)/(%SiO ₂ + 5) mppcf TWA respirable fraction : (10)/(%SiO ₂ + 2) mg/m ³ TWA respirable fraction	IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust
Zinc oxide (ZnO) 1314-13-2	STEL: 10 mg/m ³ respirable particulate matter TWA: 2 mg/m ³ respirable particulate matter	TWA: 5 mg/m ³ fume TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (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	IDLH: 500 mg/m ³ Ceiling: 15 mg/m ³ dust TWA: 5 mg/m ³ dust and fume STEL: 10 mg/m ³ fume
Limestone 1317-65-3	-	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust
Calcium fluoride (CaF ₂) 7789-75-5	TWA: 2.5 mg/m ³ F	TWA: 2.5 mg/m ³ F (vacated) TWA: 2.5 mg/m ³	IDLH: 250 mg/m ³ F TWA: 2.5 mg/m ³ F
C.I. Pigment Red 233 68187-12-2	-	TWA: 0.5 mg/m ³ Cr (vacated) TWA: 0.5 mg/m ³ Cr	IDLH: 25 mg/m ³ Cr(III) TWA: 0.5 mg/m ³ Cr

Biological occupational exposure limits

Chemical name	ACGIH
Frits, chemicals 65997-18-4	200 µg/L - blood (Lead) - not critical 5 µg/g creatinine - urine (Cadmium) - not critical 5 µg/L - blood (Cadmium) - not critical
Calcium fluoride (CaF ₂) 7789-75-5	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.
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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 threshold

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

10. Stability and reactivity

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/m ³ (Rat) 4 h
Calcium fluoride (CaF ₂) 7789-75-5	= 4250 mg/kg (Rat)	-	> 5070 mg/m ³ (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)-triethanol 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 65997-18-4	A1 A3 A2	Group 1 Group 2B Group 2A	Known Reasonably Anticipated	X
Quartz 14808-60-7	A2	Group 1	Known	X
Calcium fluoride (CaF ₂) 7789-75-5	-	Group 3	-	-
C.I. Pigment Red 233 68187-12-2	-	Group 3	-	-

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,4H,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

UN number or ID number UN3082
Proper shipping name Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es) 9
Packing group III
Special Provisions 8, 146, 173, 335, IB3, T4, TP1, TP29
DOT Marine Pollutant PP
Marine pollutant Frits, chemicals
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III, Marine pollutant
Emergency Response Guide Number 171

TDG

UN number or ID number UN3082
UN proper shipping name Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es) 9
Packing group III
Special Provisions 16, 99
Marine pollutant name Frits, chemicals, Zinc oxide (ZnO).
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III

MEX

UN number or ID number UN3082
UN proper shipping name Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es) 9
Packing group III
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 274, 331, 335

ICAO (air)

UN number or ID number UN3082
UN proper shipping name Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es) 9
Packing group III

Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III
Special Provisions	A97, A158, A197, A215

IATA

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
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	A97, A158, A197
ERG Code	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	III
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	III
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	III
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

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
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
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 (CaF ₂)	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)-triethanol	4719-04-4	Present	Active
Ethanolamine	141-43-5	Present	Active

DSL/NDL

Contact supplier for inventory compliance status.

EINECS/ELINCS

Contact supplier for inventory compliance status.

ENCS

Contact supplier for inventory compliance status.

IECSC

Contact supplier for inventory compliance status.

KECL

Contact supplier for inventory compliance status.

PICCS

Contact supplier for inventory compliance status.

AIIC

Contact supplier for inventory compliance status.

NZIoC

Contact supplier for inventory compliance status.

Legend:**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**AIIC** - Australian Inventory of Industrial Chemicals**NZIoC** - New Zealand Inventory of Chemicals**US Federal Regulations****SARA 313**

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

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

CERCLA

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

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

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
Frits, chemicals 65997-18-4	X	-	X
Kaolin 1332-58-7	X	X	X
Quartz 14808-60-7	X	X	X
Zinc oxide (ZnO) 1314-13-2	X	X	X
Limestone 1317-65-3	X	X	X
Calcium fluoride (CaF ₂) 7789-75-5	X	-	-
C.I. Pigment Red 233 68187-12-2	X	-	X
Ethanolamine 141-43-5	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

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

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

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

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

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AELG(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 09-Nov-2022

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

Revision Number 1

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 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

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 (CaF ₂)	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.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.
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5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	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 65997-18-4	STEL: 10 mg/m ³ Zr TWA: 0.01 mg/m ³ As TWA: 0.05 mg/m ³ Pb TWA: 0.01 mg/m ³ Cd TWA: 0.002 mg/m ³ Cd respirable particulate matter TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and mist TWA: 3 mg/m ³ W respirable particulate matter in the absence of cobalt TWA: 5 mg/m ³ Zr TWA: 0.02 mg/m ³ Mn respirable particulate matter TWA: 0.1 mg/m ³ Mn inhalable particulate matter	TWA: 10 µg/m ³ As TWA: 50 µg/m ³ Pb TWA: 0.5 mg/m ³ Sb TWA: 5 mg/m ³ Zr (vacated) TWA: 0.5 mg/m ³ Sb (vacated) TWA: 5 mg/m ³ Zr (vacated) STEL: 10 mg/m ³ Zr (vacated) Ceiling: 5 mg/m ³ Ceiling: 5 mg/m ³ Mn	IDLH: 5 mg/m ³ As IDLH: 9 mg/m ³ Cd dust and fume IDLH: 50 mg/m ³ Sb IDLH: 100 mg/m ³ Cu dust and mist IDLH: 500 mg/m ³ Mn IDLH: 25 mg/m ³ Zr IDLH: 100 mg/m ³ Pb IDLH: 10 mg/m ³ Ni Ceiling: 0.002 mg/m ³ As 15 min Ceiling: 0.05 mg/m ³ V dust and fume 15 min TWA: 0.5 mg/m ³ Sb TWA: 1 mg/m ³ Cu dust and mist TWA: 1 mg/m ³ 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 and <1% crystalline silica, respirable particulate matter	TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 5 mg/m ³ respirable dust
Quartz 14808-60-7	TWA: 0.025 mg/m ³ respirable particulate matter	TWA: 50 µg/m ³ (vacated) TWA: 0.1 mg/m ³ respirable dust : (250)/(%SiO ₂ + 5) mppcf TWA respirable fraction : (10)/(%SiO ₂ + 2) mg/m ³ TWA respirable fraction	IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust
Zinc oxide (ZnO) 1314-13-2	STEL: 10 mg/m ³ respirable particulate matter TWA: 2 mg/m ³ respirable particulate matter	TWA: 5 mg/m ³ fume TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (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	IDLH: 500 mg/m ³ Ceiling: 15 mg/m ³ dust TWA: 5 mg/m ³ dust and fume STEL: 10 mg/m ³ fume
Calcium fluoride (CaF ₂) 7789-75-5	TWA: 2.5 mg/m ³ F	TWA: 2.5 mg/m ³ F (vacated) TWA: 2.5 mg/m ³	IDLH: 250 mg/m ³ F TWA: 2.5 mg/m ³ F

Biological occupational exposure limits

Chemical name	ACGIH
Frits, chemicals 65997-18-4	200 µg/L - blood (Lead) - not critical 5 µg/g creatinine - urine (Cadmium) - not critical 5 µg/L - blood (Cadmium) - not critical
Calcium fluoride (CaF ₂) 7789-75-5	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.
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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
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Appearance
Color
Odor
Odor threshold

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Relative vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
<u>Other information</u>		
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/m ³ (Rat) 4 h
Calcium fluoride (CaF ₂) 7789-75-5	= 4250 mg/kg (Rat)	-	> 5070 mg/m ³ (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 65997-18-4	A1 A3 A2	Group 1 Group 2B Group 2A	Known Reasonably Anticipated	X
Quartz 14808-60-7	A2	Group 1	Known	X
Calcium fluoride (CaF ₂) 7789-75-5	-	Group 3	-	-

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	UN3082
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Special Provisions	8, 146, 173, 335, IB3, T4, TP1, TP29
DOT Marine Pollutant	PP
Marine pollutant	Frits, chemicals
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals), 9, III, Marine pollutant
Emergency Response Guide Number	171

TDG

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Special Provisions	16, 99
Marine pollutant name	Frits, chemicals, Zinc oxide (ZnO).
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III

MEX

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
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	274, 331, 335

ICAO (air)

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zinc oxide (ZnO)), 9, III
Special Provisions	A97, A158, A197, A215

IATA

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
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	A97, A158, A197
ERG Code	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	III
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	III
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	III
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

UN number or ID number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	9
Packing group	III
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
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
Calcium fluoride (CaF ₂)	7789-75-5	Present	Active
Iron oxide (Fe ₂ O ₃)	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

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol	4719-04-4	Present	Active
Aluminum oxide (Al ₂ O ₃)	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	-	X	-	-
Zinc oxide (ZnO) 1314-13-2	-	X	-	-

CERCLA

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

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

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
Frits, chemicals 65997-18-4	X	-	X
Kaolin 1332-58-7	X	X	X
Quartz 14808-60-7	X	X	X
Zinc oxide (ZnO) 1314-13-2	X	X	X
Calcium fluoride (CaF ₂) 7789-75-5	X	-	-
Iron oxide (Fe ₂ O ₃) 1309-37-1	X	X	X
Manganese 7439-96-5	X	X	X
C.I. Pigment Brown 33 68186-88-9	X	-	X
Aluminum oxide (Al ₂ O ₃) 1344-28-1	X	X	X
Barium oxide 1304-28-5	X	-	X
Ethanolamine 141-43-5	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

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

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

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

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

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

National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 09-Nov-2022

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