

# SAFETY DATA SHEET

83435-4518



Revision date 29-May-2024

Revision Number 1.01

## 1. Identification

### Product identifier

**Product Name** INK-90 Bright Orange

### Other means of identification

**Product Code(s)** FG00881

**UN number or ID number** UN3082

**Synonyms** 34004D

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

### **Hazards not otherwise classified (HNOC)**

Not applicable

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H302 - Harmful if swallowed  
H317 - May cause an allergic skin reaction  
H332 - Harmful if inhaled  
H350 - May cause cancer  
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)  
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: Call a POISON CENTER or doctor if you feel unwell  
Rinse mouth

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Unknown acute toxicity**

16.55235 % of the mixture consists of ingredient(s) of unknown acute oral toxicity  
24.0639 % 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-%
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Frits, chemicals	65997-18-4	10 - 20
C.I. Pigment Yellow 159	68187-15-5	10 - 20
Zircon, cadmium orange	99749-34-5	10 - 20
Kaolin	1332-58-7	5 - <10
Zircon	14940-68-2	3 - <5
1,2,3-Propanetriol	56-81-5	1 - <3
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	1344-28-1	1 - <3
Zinc oxide (ZnO)	1314-13-2	0.1 - 1
1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol	4719-04-4	0.1 - 1
Titanium dioxide	13463-67-7	0.1 - 1
Silica, cristobalite	14464-46-1	0.1 - 1

**4. First-aid measures****Description of first aid measures**

<b>General advice</b>	Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.
<b>Inhalation</b>	Remove to fresh air. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.
<b>Ingestion</b>	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention.
<b>Self-protection of the first aider</b>	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**

<b>Symptoms</b>	Itching. Rashes. Hives. Coughing and/ or wheezing. Difficulty in breathing.
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**Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	May cause sensitization in susceptible persons. Treat symptomatically.
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**5. Fire-fighting measures**

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Large Fire</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
<b>Specific hazards arising from the chemical</b>	Product is or contains a sensitizer. May cause sensitization by skin contact.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	None.
<b>Sensitivity to static discharge</b>	None.
<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

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**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 <sup>3</sup> Zr TWA: 0.01 mg/m <sup>3</sup> As TWA: 0.05 mg/m <sup>3</sup> Pb TWA: 0.01 mg/m <sup>3</sup> Cd TWA: 0.002 mg/m <sup>3</sup> Cd respirable particulate matter TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 1 mg/m <sup>3</sup> Cu dust and mist TWA: 3 mg/m <sup>3</sup> W respirable particulate matter in the absence of cobalt TWA: 5 mg/m <sup>3</sup> Zr TWA: 0.02 mg/m <sup>3</sup> Mn respirable particulate matter TWA: 0.1 mg/m <sup>3</sup> Mn inhalable	TWA: 10 µg/m <sup>3</sup> As TWA: 50 µg/m <sup>3</sup> Pb TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 5 mg/m <sup>3</sup> Zr (vacated) TWA: 0.5 mg/m <sup>3</sup> Sb (vacated) TWA: 5 mg/m <sup>3</sup> Zr (vacated) STEL: 10 mg/m <sup>3</sup> Zr (vacated) Ceiling: 5 mg/m <sup>3</sup> Ceiling: 5 mg/m <sup>3</sup> Mn	IDLH: 5 mg/m <sup>3</sup> As IDLH: 9 mg/m <sup>3</sup> Cd dust and fume IDLH: 50 mg/m <sup>3</sup> Sb IDLH: 100 mg/m <sup>3</sup> Cu dust and mist IDLH: 500 mg/m <sup>3</sup> Mn IDLH: 25 mg/m <sup>3</sup> Zr IDLH: 100 mg/m <sup>3</sup> Pb IDLH: 10 mg/m <sup>3</sup> Ni Ceiling: 0.002 mg/m <sup>3</sup> As 15 min Ceiling: 0.05 mg/m <sup>3</sup> V dust and fume 15 min TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 1 mg/m <sup>3</sup> Cu dust and

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	particulate matter		mist TWA: 1 mg/m <sup>3</sup> Mn TWA: 5 mg/m <sup>3</sup> except Zirconium tetrachloride Zr TWA: 0.050 mg/m <sup>3</sup> Pb TWA: 0.015 mg/m <sup>3</sup> except Nickel carbonyl Ni STEL: 3 mg/m <sup>3</sup> Mn STEL: 10 mg/m <sup>3</sup> Zr
C.I. Pigment Yellow 159 68187-15-5	STEL: 10 mg/m <sup>3</sup> Zr TWA: 5 mg/m <sup>3</sup> Zr	TWA: 5 mg/m <sup>3</sup> Zr (vacated) TWA: 5 mg/m <sup>3</sup> Zr (vacated) STEL: 10 mg/m <sup>3</sup> Zr	IDLH: 25 mg/m <sup>3</sup> Zr TWA: 5 mg/m <sup>3</sup> except Zirconium tetrachloride Zr STEL: 10 mg/m <sup>3</sup> Zr
Zircon, cadmium orange 99749-34-5	STEL: 10 mg/m <sup>3</sup> Zr TWA: 0.01 mg/m <sup>3</sup> Cd TWA: 0.002 mg/m <sup>3</sup> Cd respirable particulate matter TWA: 5 mg/m <sup>3</sup> Zr	TWA: 5 mg/m <sup>3</sup> Zr (vacated) TWA: 5 mg/m <sup>3</sup> Zr (vacated) STEL: 10 mg/m <sup>3</sup> Zr	IDLH: 9 mg/m <sup>3</sup> Cd dust and fume IDLH: 25 mg/m <sup>3</sup> Zr TWA: 5 mg/m <sup>3</sup> except Zirconium tetrachloride Zr STEL: 10 mg/m <sup>3</sup> Zr
Kaolin 1332-58-7	TWA: 2 mg/m <sup>3</sup> particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust
Zircon 14940-68-2	STEL: 10 mg/m <sup>3</sup> Zr TWA: 5 mg/m <sup>3</sup> Zr	TWA: 5 mg/m <sup>3</sup> Zr (vacated) TWA: 5 mg/m <sup>3</sup> Zr (vacated) STEL: 10 mg/m <sup>3</sup> Zr	IDLH: 25 mg/m <sup>3</sup> Zr TWA: 5 mg/m <sup>3</sup> except Zirconium tetrachloride Zr STEL: 10 mg/m <sup>3</sup> Zr
1,2,3-Propanetriol 56-81-5	-	TWA: 15 mg/m <sup>3</sup> mist, total particulate TWA: 5 mg/m <sup>3</sup> mist, respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> mist, total particulate (vacated) TWA: 5 mg/m <sup>3</sup> mist, respirable fraction	-
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> ) 1344-28-1	TWA: 1 mg/m <sup>3</sup> respirable particulate matter	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	-
Zinc oxide (ZnO) 1314-13-2	STEL: 10 mg/m <sup>3</sup> respirable particulate matter TWA: 2 mg/m <sup>3</sup> respirable particulate matter	TWA: 5 mg/m <sup>3</sup> fume TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 5 mg/m <sup>3</sup> fume (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) STEL: 10 mg/m <sup>3</sup> fume	IDLH: 500 mg/m <sup>3</sup> Ceiling: 15 mg/m <sup>3</sup> dust TWA: 5 mg/m <sup>3</sup> dust and fume STEL: 10 mg/m <sup>3</sup> fume
Titanium dioxide 13463-67-7	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> total dust (vacated) TWA: 10 mg/m <sup>3</sup> total dust	IDLH: 5000 mg/m <sup>3</sup> TWA: 2.4 mg/m <sup>3</sup> CIB 63 fine TWA: 0.3 mg/m <sup>3</sup> CIB 63 ultrafine, including engineered nanoscale
Silica, cristobalite 14464-46-1	TWA: 0.025 mg/m <sup>3</sup> respirable particulate matter	TWA: 50 µg/m <sup>3</sup> (vacated) TWA: 0.05 mg/m <sup>3</sup> respirable dust	IDLH: 25 mg/m <sup>3</sup> respirable dust TWA: 0.05 mg/m <sup>3</sup> respirable dust

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		: (1/2)(250)/(%SiO <sub>2</sub> + 5) mppcf TWA respirable fraction : (1/2)(10)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA respirable fraction	
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## 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
Zircon, cadmium orange 99749-34-5	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.
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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. 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

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<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>		None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known
<b>Other information</b>		
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	
<b>VOC Content (%)</b>	No information available	

**10. Stability and reactivity**

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

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

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

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

<b>Symptoms</b>	Itching. Rashes. Hives. Coughing and/ or wheezing.
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**Acute toxicity****Numerical measures of toxicity**  
No information available**The following values are calculated based on chapter 3.1 of the GHS document**

<b>ATEmix (oral)</b>	498.90 mg/kg
<b>ATEmix (dermal)</b>	4,516.40 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	4.41 mg/l

**Unknown acute toxicity**

16.55235 % of the mixture consists of ingredient(s) of unknown acute oral toxicity  
24.0639 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

**Component Information**

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Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Frits, chemicals 65997-18-4	> 2000 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-
C.I. Pigment Yellow 159 68187-15-5	-	-	> 5.5 mg/L ( Rat ) 4 h
Kaolin 1332-58-7	> 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rat )	-
1,2,3-Propanetriol 56-81-5	= 12600 mg/kg ( Rat )	> 10 g/kg ( Rabbit )	> 2.75 mg/L ( Rat ) 4 h
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> ) 1344-28-1	> 5000 mg/kg ( Rat )	-	-
Zinc oxide (ZnO) 1314-13-2	> 5000 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	> 5700 mg/m <sup>3</sup> ( 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
Titanium dioxide 13463-67-7	> 10000 mg/kg ( Rat )	-	= 5.09 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 an allergic skin reaction.**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
Zircon, cadmium orange 99749-34-5	A2	Group 1	Known	X
Titanium dioxide 13463-67-7	-	Group 2B	-	X
Silica, cristobalite 14464-46-1	A2	Group 1	Known	X

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

A1 - Known Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

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

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

**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



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

**12. Ecological information****Ecotoxicity** Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
1,2,3-Propanetriol 56-81-5	-	LC50: 51 - 57mL/L (96h, <i>Oncorhynchus mykiss</i> )	-	-
Zinc oxide (ZnO) 1314-13-2	-	LC50: =1.55mg/L (96h, <i>Danio rerio</i> )	-	-
1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol 4719-04-4	-	LC50: =16.07mg/L (96h, <i>Danio rerio</i> )	-	-

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

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

**Other adverse effects** No information available.**13. Disposal considerations****Disposal methods****Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.**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**

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

**TDG**

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

**MEX**

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

**ICAO (air)**

<b>UN number or ID number</b>	UN3082
<b>UN proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s.
<b>Transport hazard class(es)</b>	9
<b>Packing group</b>	III
<b>Description</b>	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zircon, cadmium orange), 9, III
<b>Special Provisions</b>	A97, A158, A197, A215

**IATA**

<b>UN number or ID number</b>	UN3082
<b>UN proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s.
<b>Transport hazard class(es)</b>	9
<b>Packing group</b>	III
<b>Technical Name</b>	Frits, chemicals, Zircon, cadmium orange
<b>Description</b>	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zircon, cadmium orange), 9, III
<b>Special Provisions</b>	A97, A158, A197
<b>ERG Code</b>	9L

**IMDG**

<b>UN number or ID number</b>	UN3082
<b>UN proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s.
<b>Transport hazard class(es)</b>	9
<b>Packing group</b>	III
<b>EmS-No</b>	F-A, S-F
<b>Special Provisions</b>	274, 335, 969
<b>Marine pollutant</b>	P
<b>Marine Pollutant Description</b>	Frits, chemicals, Zircon, cadmium orange UN3082, Environmentally hazardous substance, liquid, n.o.s. (Frits, chemicals, Zircon,

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cadmium orange), 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, Zircon, cadmium orange), 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, Zircon, cadmium orange), 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, Zircon, cadmium orange), 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
C.I. Pigment Yellow 159	68187-15-5	Present	Active
Zircon, cadmium orange	99749-34-5	-	Unknown *
Kaolin	1332-58-7	Present	Active
Zircon	14940-68-2	Present	Active
Bentone EW	89382-86-5	-	Unknown *
1,2,3-Propanetriol	56-81-5	Present	Active
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	1344-28-1	Present	Active
Sodium carboxymethyl cellulose	9004-32-4	Present	Active
Zinc oxide (ZnO)	1314-13-2	Present	Active
Quartz	14808-60-7	Present	Active
Polyphosphoric acids, sodium salts	68915-31-1	Present	Active
1,3,5-Triazine-1,3,5(2H,4H,6H)-triethanol	4719-04-4	Present	Active
Mica	12001-26-2	-	Unknown *
Titanium dioxide	13463-67-7	Present	Active
Silica, cristobalite	14464-46-1	Present	Active
Ethanolamine	141-43-5	Present	Active

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\*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

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

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

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

Chemical name	SARA 313 - Threshold Values %
Frits, chemicals - 65997-18-4	0.1
	1.0
Zircon, cadmium orange - 99749-34-5	0.1
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> ) - 1344-28-1	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	-	-
Zircon, cadmium orange 99749-34-5	-	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**

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Chemical name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
Frits, chemicals 65997-18-4	X	-	X
Zircon, cadmium orange 99749-34-5	X	-	X
Kaolin 1332-58-7	X	X	X
1,2,3-Propanetriol 56-81-5	X	X	X
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> ) 1344-28-1	X	X	X
Zinc oxide (ZnO) 1314-13-2	X	X	X
Quartz 14808-60-7	X	X	X
Mica 12001-26-2	X	-	X
Titanium dioxide 13463-67-7	X	X	X
Silica, cristobalite 14464-46-1	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  
*Chronic Hazard Star Legend* \* = Chronic Health Hazard

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

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

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

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

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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

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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**