SAFETY DATA SHEET

30489-4041

AMACO EST. 1919 brent

Revision Number 1

Revision date 19-Dec-2022

1. Identification		
Product identifier		
Product Name	C-32 Dry Ochre	
Other means of identification		
Product Code(s)	FG00423	
Synonyms	39560X	
Recommended use of the chemica	l and restrictions on use	
Recommended use		
Restrictions on use		
Details of the supplier of the safety data sheet		
Manufacturer Address American Art Clay Co Inc 6060 Guion Road Indianapolis, IN 46254-1222 USA Toll Free: 1-800-999-5456 CustomerCare@Amaco.com		
Emergency telephone number		

Emergency Telephone

U.S. Poison Control 1-800-222-1222

2. Hazard(s) identification

Classification

Acute toxicity - Oral	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Specific target organ toxicity (repeated exposure)	Category 2

Hazards not otherwise classified (HNOC) Not applicable

Label elements

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Hazard statements Danger

| H301 - Toxic if swallowed H332 - Harmful if inhaled H373 - May cause damage to organs through prolonged or repeated exposure



Physical state Powder 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 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 INHALED: Remove person to fresh air and keep comfortable for breathing Call a doctor if you feel unwell 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

43.36 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

75.46 % 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. Toxic to aquatic life.

3. Composition/information on ingredients

Not applicable.

Mixture

Chemical name	CAS No	Weight-%
Quartz	14808-60-7	20 - 40
Wollastonite (Ca(SiO3))	13983-17-0	20 - 40
Frits, chemicals	65997-18-4	20 - 40
Kaolin	1332-58-7	5 - <10
Zinc oxide (ZnO)	1314-13-2	3 - <5
Iron oxide (Fe2O3)	1309-37-1	1 - <3
Aluminum oxide (Al2O3)	1344-28-1	1 - <3

4. First-aid measures

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Description of first aid measures			
General advice	Show this safety data sheet to the doctor in attendance.		
Inhalation	If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. If symptoms persist, call a physician.		
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.		
Skin contact	Wash skin with soap and water.		
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. 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 dust/fume/gas/mist/vapors/spray. Use personal protective equipment as required. See section 8 for more information.		
Most important symptoms and effects, both acute and delayed			
Symptoms	Coughing and/ or wheezing. Difficulty in breathing.		
Indication of any immediate medical attention and special treatment needed			
Note to physicians	Treat symptomatically.		

5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.	
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.	
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.	
Specific hazards arising from the chemical	No information available.	
Explosion data Sensitivity to mechanical impact None.		
Sensitivity to static discharge	None.	
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.	

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures			
Personal precautions	Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid generation of dust. Do not breathe dust.		
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 upPick up and transfer to properly labeled containers.			

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7. Handling and storage		
Precautions for safe handling		
Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid generation of dust. Do not eat, drink or smoke when using this product.	
Conditions for safe storage, including any incompatibilities		
Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.	

8. Exposure controls/personal protection

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Quartz	TWA: 0.025 mg/m ³ respirable	TWA: 50 μg/m ³	IDLH: 50 mg/m ³ respirable dust
14808-60-7	particulate matter	(vacated) TWA: 0.1 mg/m ³	TWA: 0.05 mg/m ³ respirable
		respirable dust	dust
		: (250)/(%SiO2 + 5) mppcf	
		TWA respirable fraction	
		$(10)/(\%SiO2 + 2) mg/m^3$	
	$T \setminus A \to a + a + a + a + a + a + a + a + a + a$	TWA respirable fraction	TWA: 10 mg/m ³ total dust
Wollastonite (Ca(SiO3)) 13983-17-0	TWA: 1 mg/m ³ inhalable	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable	- J .
13983-17-0	particulate matter, particulate	fraction	TWA: 5 mg/m ³ respirable dust
	matter containing no asbestos and <1% crystalline silica	(vacated) TWA: 15 mg/m ³ total	
	and < 1% crystalline slitca	dust	
		(vacated) TWA: 5 mg/m ³	
		respirable fraction	
Frits, chemicals	STEL: 10 mg/m ³ Zr	TWA: 10 µg/m ³ As	IDLH: 5 mg/m ³ As
65997-18-4	TWA: 0.01 mg/m ³ As	TWA: 50 µg/m ³ Pb	IDLH: 9 mg/m ³ Cd dust and
	TWA: 0.05 mg/m ³ Pb	TWA: 0.5 mg/m ³ Sb	fume
	TWA: 0.01 mg/m ³ Cd	TWA: 5 mg/m ³ Zr	IDLH: 50 mg/m ³ Sb
	TWA: 0.002 mg/m ³ Cd	(vacated) TWA: 0.5 mg/m ³ Sb	IDLH: 100 mg/m ³ Cu dust and
	respirable particulate matter	(vacated) TWA: 5 mg/m ³ Zr	mist
	TWA: 0.5 mg/m ³ Sb	(vacated) STEL: 10 mg/m ³ Zr	IDLH: 500 mg/m ³ Mn
	TWA: 1 mg/m ³ Cu dust and mist	(vacated) Ceiling: 5 mg/m ³	IDLH: 25 mg/m ³ Zr
	TWA: 3 mg/m ³ W respirable	Ceiling: 5 mg/m ³ Mn	IDLH: 100 mg/m ³ Pb
	particulate matter in the absence		IDLH: 10 mg/m ³ Ni
	of cobalt		Ceiling: 0.002 mg/m ³ As 15 min
	TWA: 5 mg/m ³ Zr		Ceiling: 0.05 mg/m ³ V dust and
	TWA: 0.02 mg/m ³ Mn respirable		fume 15 min
	particulate matter		TWA: 0.5 mg/m ³ Sb
	TWA: 0.1 mg/m ³ Mn inhalable		TWA: 1 mg/m ³ Cu dust and
	particulate matter		mist
			TWA: 1 mg/m ³ Mn
			TWA: 5 mg/m ³ except Zirconium
			tetrachloride Zr
			TWA: 0.050 mg/m ³ Pb TWA: 0.015 mg/m ³ except
			Nickel carbonyl Ni
			STEL: 3 mg/m ³ Mn
			STEL: 3 mg/m ³ Zr
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Kaolin	TWA: 2 mg/m ³ particulate	TWA: 15 mg/m ³ total dust	TWA: 10 mg/m ³ total dust
1332-58-7	matter containing no asbestos	TWA: 5 mg/m ³ respirable	TWA: 5 mg/m ³ respirable dust
	and <1% crystalline silica,	fraction	
	respirable particulate matter	(vacated) TWA: 10 mg/m ³ total	
		dust	
		(vacated) TWA: 5 mg/m ³	
		respirable fraction	
Zinc oxide (ZnO)	STEL: 10 mg/m ³ respirable	TWA: 5 mg/m ³ fume	IDLH: 500 mg/m ³
1314-13-2	particulate matter	TWA: 15 mg/m ³ total dust	Ceiling: 15 mg/m ³ dust
	TWA: 2 mg/m ³ respirable	TWA: 5 mg/m ³ respirable	TWA: 5 mg/m ³ dust and fume
	particulate matter	fraction	STEL: 10 mg/m ³ fume
		(vacated) TWA: 5 mg/m ³ fume	
		(vacated) TWA: 10 mg/m ³ total	
		dust	
		(vacated) TWA: 5 mg/m ³	
		respirable fraction	
		(vacated) STEL: 10 mg/m ³	
		fume	
Iron oxide (Fe2O3)	TWA: 5 mg/m ³ respirable	TWA: 10 mg/m ³ fume	IDLH: 2500 mg/m ³ Fe dust and
1309-37-1	particulate matter	TWA: 15 mg/m ³ total dust	fume
		TWA: 5 mg/m³ respirable fraction	TWA: 5 mg/m ³ Fe dust and fume
		(vacated) TWA: 10 mg/m ³ fume	
		and total dust Iron oxide	
		(vacated) TWA: 5 mg/m ³	
		respirable fraction regulated	
		under Rouge	
Aluminum oxide (Al2O3)	TWA: 1 mg/m ³ respirable	TWA: 15 mg/m ³ total dust	
1344-28-1	particulate matter	TWA: 15 mg/m ³ respirable	_
1011 201	Particulate matter	fraction	
		(vacated) TWA: 10 mg/m ³ total	
		dust	
		(vacated) TWA: 5 mg/m ³	
		respirable fraction	

Biological occupational exposure limits

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

Appropriate engineering controls

Engineering controls Showers

Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment Eye/face protection No special protective equipment required. Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Avoid breathing dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.

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9. Physical and chemical properties				
Information on basic physical and o Physical state Appearance	Powder			
Color Odor				
Odor threshold				
Property	Values	Remarks • Method		
pH	No data available	None known		
Melting point / freezing point	No data available	None known		
Initial boiling point and boiling range	je No data available	None known		
Flash point	No data available	None known		
Evaporation rate	No data available	None known		
Flammability	No data available	None known		
Flammability Limit in Air		None known		
Upper flammability or explosive 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 Oxidizing properties	No information available No information available			
VOC Content (%)	No information available			
VOC Content (%)				
10. Stability and reactivity				
Reactivity	No information available.	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.

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Skin contact	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 physica	I, chemical and toxicological characteristics
Symptoms	Coughing and/ or wheezing.
Acute toxicity	
Numerical measures of toxicity No information available	
The following values are calculat ATEmix (oral) ATEmix (dermal)	ted based on chapter 3.1 of the GHS document 262.80 mg/kg 2.272.10 mg/kg

ATEmix (dermal) ATEmix (inhalation-dust/mist) 2,272.10 mg/ĸg 1.69 mg/l

Unknown acute toxicity

43.36 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

75.46 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Wollastonite (Ca(SiO3)) 13983-17-0	> 5000 mg/kg (Rat)	-	-
Frits, chemicals 65997-18-4	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
Kaolin 1332-58-7	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rat)	-
Zinc oxide (ZnO) 1314-13-2	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 5700 mg/m³ (Rat)4 h
Iron oxide (Fe2O3) 1309-37-1	> 10000 mg/kg (Rat)	-	-
Aluminum oxide (Al2O3) 1344-28-1	> 5000 mg/kg (Rat)	-	-

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

Skin corrosion/irritation	No information available.	
Serious eye damage/eye irritation	No information available.	
Respiratory or skin sensitization	No information available.	
Germ cell mutagenicity	No information available.	

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

Chemical name	ACGIH	IARC	NTP	OSHA
Quartz 14808-60-7	A2	Group 1	Known	Х
Wollastonite (Ca(SiO3)) 13983-17-0	-	Group 3	-	-
Frits, chemicals 65997-18-4	A1 A3 A2	Group 1 Group 2B Group 2A	Known Reasonably Anticipated	Х
Iron oxide (Fe2O3) 1309-37-1	-	Group 3	-	_

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Legend

 A1 - Known Human Carcinogen A2 - Suspected Human Carcinoge A3 - Animal Carcinogen IARC (International Agency for F Group 1 - Carcinogenic to Humans Group 2A - Probably Carcinogenic Group 2B - Possibly Carcinogenic Group 3 - Not Classifiable as to Ca NTP (National Toxicology Progratic Known - Known Carcinogen Reasonably Anticipated - Reasonably 	Research on Cancer) s : to Humans to Humans arcinogenicity in Humans
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Target organ effects	Liver, Kidney, Respiratory system, Eyes, Skin, Central nervous system, Blood, Central Vascular System (CVS), Lungs, Nasal Cavities, Lymphatic System, prostate, Gastrointestinal tract (GI).

Aspiration hazard No information available.

Other adverse effects

Interactive effects

12. Ecological information

Ecotoxicity

Toxic to aquatic life. 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)	-	-
Iron oxide (Fe2O3) 1309-37-1	-	LC50: =100000mg/L (96h, Danio rerio)	-	-

Persistence and degradability

Bioaccumulation

There is no data for this product.

Other adverse effects

No information available.

13. Disposal considerations

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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	
14. Transport information	

DOT	Not regulated
UN number or ID number Packing group	UN 3077 III

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
Quartz	14808-60-7	Present	Active
Wollastonite (Ca(SiO3))	13983-17-0	Present	Active
Frits, chemicals	65997-18-4	Present	Active
Nepheline syenite	37244-96-5	-	Unknown *
Kaolin	1332-58-7	Present	Active
Zinc oxide (ZnO)	1314-13-2	Present	Active
Iron oxide (Fe2O3)	1309-37-1	Present	Active
Aluminum oxide (Al2O3)	1344-28-1	Present	Active
Smectite-group minerals	12199-37-0	Present	Active

*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

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

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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
Aluminum oxide (Al2O3) - 1344-28-1	1.0

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

CWA (Clean Water Act)

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

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Frits, chemicals 65997-18-4	-	Х	-	-
Zinc oxide (ZnO) 1314-13-2	-	Х	-	-

CERCLA

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

US State Regulations

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Quartz 14808-60-7	Х	X	X
Wollastonite (Ca(SiO3)) 13983-17-0	Х	X	X
Frits, chemicals 65997-18-4	Х	-	X
Kaolin 1332-58-7	Х	X	X
Zinc oxide (ZnO) 1314-13-2	Х	X	X
Iron oxide (Fe2O3) 1309-37-1	Х	X	X
Aluminum oxide (Al2O3) 1344-28-1	Х	Х	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

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16. Other information							
NFPA HMIS	Health hazards 3 Health hazards 2 *	Flammability Flammability		Instability 0 Physical hazards 0	Special hazards - Personal protection X		
	breviations and acronyms		ty data sh	neet			
TWA T	Exposure controls/persona WA (time-weighted average) faximum limit value		STEL	STEL (Short Terr Skin designation	m Exposure Limit)		
Agency for Toxic Sub U.S. Environmental F European Food Safe EPA (Environmental Acute Exposure Guic U.S. Environmental F Food Research Journ Hazardous Substand International Uniform National Institute of T Australia National Inst NIOSH (National Inst National Library of M National Library of M National Library of M National Toxicology I New Zealand's Chem Organization for Eco Organization for Eco World Health Organiz	Protection Agency) deline Level(s) (AEGL(s)) Protection Agency Federal Ins Protection Agency High Produ- nal is Database Chemical Information Datab Fechnology and Evaluation (N dustrial Chemicals Notification titute for Occupational Safety edicine's ChemID Plus (NLM edicine's PubMed database (Program (NTP) nical Classification and Inform nomic Co-operation and Deve nomic Co-operation and Deve	y (ATSDR) Database secticide, Fungici iction Volume Ch ase (IUCLID) IITE) and Assessmer and Health) CIP) NLM PUBMED) ation Database (elopment Environ elopment High Pr elopment Screeni	de, and Ro nemicals nt Scheme (CCID) ment, Hea roduction \	odenticide Act (NICNAS) alth, and Safety Publicatio /olume Chemicals Progra			
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date of its publicati	ovided in this Safety Data S on. The information given i	s designed only	as a guid	lance 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