SAFETY DATA SHEET

Revision date 12-Oct-2022 **Revision Number** 1

1. Identification

Product identifier

Product Name PC-59 Deep Firebrick

Other means of identification

Product Code(s) FG00297

UN number or ID number UN3082

Synonyms 35454W, 35441D

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

Hazards not otherwise classified (HNOC)
Not applicable

Label elements

Hazard statements
Danger

H302 - Harmful if swallowed
H317 - May cause an allergic skin reaction
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
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
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 soap and water
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse
IF SWALLOWED: Call a POISON CENTER or doctor/physician 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

43.2275 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
45.4675 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
53.8675 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
53.8675 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
48.2675 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Other information
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	10 - 20
Zircon, cadmium red	72828-62-7	5 - <10
Kaolin	1332-58-7	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. IF exposed or concerned: Get medical advice/attention.

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash 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. Call a physician.

Most important symptoms and effects, both acute and delayed

Symptoms Itching. Rashes. Hives.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media 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.

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.

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
Quartz 14808-60-7	TWA: 0.025 mg/m³ respirable particulate matter	TWA: 50 µg/m³ (vacated) TWA: 0.1 mg/m³ respirable dust : (250)/(%SiO2 + 5) mppcf TWA respirable fraction : (10)/(%SiO2 + 2) mg/m ³ TWA respirable fraction	IDLH: 50 mg/m³ respirable dust TWA: 0.05 mg/m³ respirable dust
Zircon, cadmium red 72828-62-7	STEL: 10 mg/m³ Zr TWA: 0.01 mg/m³ Cd TWA: 0.002 mg/m³ Cd respirable particulate matter TWA: 0.2 mg/m³ Se TWA: 5 mg/m³ Zr	TWA: 0.2 mg/m³ Se TWA: 5 mg/m³ Zr (vacated) TWA: 0.2 mg/m³ Se (vacated) TWA: 5 mg/m³ Zr (vacated) STEL: 10 mg/m³ Zr	IDLH: 9 mg/m³ Cd dust and fume IDLH: 1 mg/m³ Se IDLH: 25 mg/m³ Zr TWA: 0.2 mg/m³ except Selenium hexafluoride Se TWA: 5 mg/m³ except Zirconium tetrachloride Zr STEL: 10 mg/m³ Zr
Kaolin 1332-58-7	TWA: 2 mg/m³ particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m³ total dust TWA: 5 mg/m³ respirable fraction (vacated) TWA: 10 mg/m³ total dust (vacated) TWA: 5 mg/m³ respirable fraction	TWA: 10 mg/m³ total dust TWA: 5 mg/m³ respirable dust

Biological occupational exposure limits

Chemical name	ACGIH
Zircon, cadmium red 72828-62-7	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	410 °C / 770 °F	None known
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

Other information

Explosive properties No information available
Oxidizing properties No information available
VOC Content (%) No information available

10. Stability and reactivity

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid None known based on information supplied.

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact 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.

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)	999.80 mg/kg
ATEmix (dermal)	9,650.20 mg/kg
ATEmix (inhalation-dust/mist)	13.90 mg/l

Unknown acute toxicity

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45.4675 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
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Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Kaolin 1332-58-7	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rat)	-
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 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
Quartz 14808-60-7	A2	Group 1	Known	X
Zircon, cadmium red 72828-62-7	A2	Group 1 Group 3	Known	X

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)
A2 - Suspected Human Carcinogen
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 3 - Not Classifiable as to Carcinogenicity in Humans
NTP (National Toxicology Program)
Known - Known 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 Kidney, Respiratory system, Eyes, Skin, Blood, Lungs, 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
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.

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	Zircon, cadmium red
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zircon, cadmium red), 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	Zircon, cadmium red, Zinc oxide (ZnO).
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zircon, cadmium red, 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	Zircon, cadmium red, Zinc oxide (ZnO)
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zircon, cadmium red, 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. (Zircon, cadmium red, 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	Zircon, cadmium red, Zinc oxide (ZnO)
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zircon, cadmium red, 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	Zircon, cadmium red, Zinc oxide (ZnO)
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zircon, cadmium red, 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. (Zircon, cadmium red, 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. (Zircon, cadmium red, 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. (Zircon, cadmium red, 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
Quartz	14808-60-7	Present	Active
Nepheline syenite	37244-96-5	-	Unknown *
Zircon, cadmium red	72828-62-7	Present	Active
Kaolin	1332-58-7	Present	Active
Iron oxide (Fe3O4)	1317-61-9	Present	Active

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Sodium carboxymethyl cellulose	9004-32-4	Present	Active
Limestone	1317-65-3	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
Zinc oxide (ZnO)	1314-13-2	Present	Active
1306-06-5	-	Present	Active
Iron oxide (Fe2O3)	1309-37-1	Present	Active
Aluminum oxide (Al2O3)	1344-28-1	Present	Active
Ethanolamine	141-43-5	Present	Active
Magnesium oxide (MgO)	1309-48-4	Present	Active
Manganese	7439-96-5	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

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 %
Zircon, cadmium red - 72828-62-7	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
Zircon, cadmium red 72828-62-7	-	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
Quartz 14808-60-7	X	X	X
Zircon, cadmium red 72828-62-7	X	-	X
Kaolin 1332-58-7	X	X	X
Limestone 1317-65-3	X	X	X
Zinc oxide (ZnO) 1314-13-2	X	X	X
1306-06-5	X	X	X
Iron oxide (Fe2O3) 1309-37-1	X	X	X
Aluminum oxide (Al2O3) 1344-28-1	X	X	X
Ethanolamine 141-43-5	X	X	X
Magnesium oxide (MgO) 1309-48-4	X	X	X
Manganese 7439-96-5	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA **Health hazards** 2 **Flammability** 1 **Instability** 0 **Special hazards** -
HMIS **Health hazards** 2 * **Flammability** 1 **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
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 12-Oct-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