

83471-XXXX



# Safety Data Sheet

## 1. COMPANY AND PRODUCT IDENTIFICATION

<b>Penguin Pottery LLC</b> 193 A St, Unit 42 Wilder, VT 05088 603-200-3042 support@penguinpottery.com www.penguinpottery.com	<b>IN CASE OF EMERGENCY PLEASE CONTACT YOUR REGIONAL / LOCAL POISON CONTROL CENTER.</b> <b>1-800-222-1222</b>
<b>Product name:</b>	Penguin Pottery Ceramic Glazes
<b>Product use/description:</b>	Penguin Pottery Ceramic Glazes
<b>Product Identifier Codes:</b>	All SKUs beginning with: PP-GZ-{----} PP-UG-{----} PP-BS-{----}
<b>Restrictions on use:</b>	None known.

## 2. HAZARDS IDENTIFICATION

Each glaze family is a mixture of ceramic material containing, water, non-leaded frits, clay, and other minerals and color pigments. Contains potential carcinogens. Crystalline silica (quartz), as an inhalation hazard, may be present if:

- Unfired, dried glaze is excessively handled and allowed to create dust.
- Mist is present after spray application

A few pigments may contain a very small amount of zirconium encapsulated cadmium, titanium dioxide, and other metals. Other ingredients present have no known acute toxicity.

<b>Classification:</b>	This mixture does not meet criteria for classification.
<b>Hazard statement:</b>	Not applicable
<b>Other hazards:</b>	Not applicable
<b>Signal word:</b>	Not applicable
<b>Precautionary statement:</b>	Not applicable
<b>Pictogram(s) by GHS:</b>	Not applicable

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Detailed formulation is proprietary information.** Each glaze family contains proprietary mixtures of ceramic materials and color pigments.

Ingredients	CAS #	Ranges of Percentages
2-aminoethanol	141-43-5	< 1%

2,2,2 Hexahydro-1,3,5-triazine-1,3,5 triyl triethanol	4719-04-04	< 1%
Aluminum Silicate (Kaolin)	1332-58-7	Max 15%
Blended Iron Oxide	1309-37-1	Max 15%
Calcium Carbonate	1317-65-3	< 1%
Calcium Fluoride	7789-75-5	< 1%
Carboxymethylcellulose	9004-34-2	< 1%
Clay/Bentonite	1302-78-9	Max 5%
Copper Carbonate	12069-69-1	Max 15%
Copper Oxide	1317-38-0	Max 15%
Ethylene Glycol	107-21-1	Max 25%
Frit	65997-18-4	Max 10%
Lithium Carbonate	554-13-2	Max 15%
Nepheline Syenite	37244-96-5	Max 15%
Potassium Feldspar	68476-25-5	Max 20%
Rutile	13463-67-7	< 1%
Silicon Dioxide	14808-60-7	Max 30%
Titanium Dioxide	13463-67-7	Max 15%
Water	7732-18-5	20% - 30%
Zinc Oxide	1314-13-2	Max 15%
Zirconium Silicate	10101-52-7	Max 5%
Pigments	Varies	0% - 30%

#### 4. FIRST AID MEASURES

<b>On inhalation:</b>	May cause irritation if allowed to dry and inhaled in powder form. Remove from exposure.
<b>On skin contact:</b>	Wash skin with soap and water. If symptoms develop or persist, seek medical attention.
<b>On eye contact:</b>	Flush eyes with water as a precaution. Get medical attention if irritation develops or persists. Direct contact with eyes may cause temporary irritation.
<b>On ingestion:</b>	Drink 1-2 glasses of water. Get medical attention. Never give anything by mouth to an unconscious person. Contact physician.
<b>Acute/delayed symptoms:</b>	None known.
<b>Medical advice:</b>	Treat symptomatically.
<b>Symptoms / effects:</b>	None known.
<b>Special treatment needed:</b>	None known.

#### 5. FIREFIGHTING MEASURES

Extinguishing Media	
<b>Suitable extinguishing media:</b>	Product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.
<b>Unsuitable extinguishing media:</b>	None known

Protection of Firefighters	
<b>Specific hazards arising from the chemical:</b>	None known
<b>Protective equipment for firefighters:</b>	None
<b>Special precautions for fire fighters:</b>	None known
<b>Will hazardous combustion occur?</b>	Will not occur

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions:</b>	None
<b>Environmental precautions:</b>	Avoid discharge into drains, water courses, or onto the ground.
<b>Methods for cleaning up:</b>	Absorb spillage with suitable absorbent material. Collect and dispose of spillage as indicated in Section 13 of this SDS.
<b>Recommended personal protective equipment:</b>	See Section 8 of this SDS.

## 7. HANDLING AND STORAGE

<b>Safe storage:</b>	Store in closed original container in a dry place. Storage temperature: between 4°C and 38°C. Protect from freezing.
<b>Safe handling:</b>	Avoid breathing mist/vapors/spray. Food, beverages, and smoking materials should not be in the work area. Wash thoroughly before eating, drinking, smoking, or applying cosmetics.
<b>Known incompatibilities:</b>	None known. Protect from freezing.

**Occupational exposure limits:** No exposure limit noted for ingredient(s).

**Appropriate engineering controls:** No special requirements under ordinary conditions of use and with adequate ventilation.

## 8. EXPOSURE CONTROL AND PERSONAL PROTECTION

**Individual protection measures, such as PPE (personal protective equipment):**

- Engineer Control: Adequate ventilation (local exhaust) if spray application is used.
- Respiratory Protection: Use a NIOSH approved respirator if spray application is used.
- Protective Gloves: Not normally needed.
- Eye Protection: Wear appropriate eye protection or safety glasses to keep mist out of eyes if spray application is used.
- Personal Protective Clothing or Equipment: Wear appropriate clean, protective clothing such as, but not limited to, overalls, smocks, and aprons

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state/appearance:</b>	Liquid
<b>Color:</b>	Various
<b>Odor:</b>	Odorless or negligible
<b>Odor threshold:</b>	N/A
<b>pH:</b>	N/A
<b>Boiling point/range:</b>	>100°C (>212°F)
<b>Melting point/range:</b>	1000°C (1832°F)
<b>Flash point:</b>	N/A
<b>Evaporation rate:</b>	N/A
<b>Vapor density:</b>	N/A
<b>Solubility(ies):</b>	Miscible in water
<b>Vapor pressure:</b>	N/A
<b>Relative density:</b>	N/A
<b>Viscosity:</b>	N/A

<b>Partition coefficient (n-octanol/water), if applicable:</b>	N/A
<b>Explosive properties:</b>	N/A
<b>Flammability: (solid, gas)</b>	N/A
<b>Flammability limit in air: upper/lower</b>	N/A
<b>Autoignition temperature:</b>	None known
<b>Decomposition temperature:</b>	N/A

## 10. STABILITY AND REACTIVITY

<b>Chemical stability:</b>	Stable under normal conditions
<b>Conditions to avoid:</b>	Freezing
<b>Incompatible materials:</b>	None known
<b>Hazardous decomposition products:</b>	None known
<b>Possibility of hazardous reactions:</b>	Will not occur
<b>Reactivity:</b>	Stable under normal conditions
<b>Hazardous polymerization:</b>	Will not occur

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure:

<b>Eye contact – serious eye damage or irritation</b>	Direct contact with eyes may cause temporary irritation.
<b>Skin contact – skin corrosion, sensitization or irritation:</b>	Prolonged contact with skin may cause dryness of the skin.
<b>Ingestion – carcinogenicity/aspiration hazard:</b>	No data available
<b>Inhalation – respiratory sensitization/toxicity:</b>	No data available
<b>Symptoms related to the physical chemical and toxicological characteristics:</b>	No data available
<b>Information on toxicological effects:</b>	None known
<b>Delayed or immediate effects:</b>	No data available
<b>Germ cell mutagenicity:</b>	No data available
<b>Specific target organ toxicity (single exposure):</b>	No data available
<b>Specific target organ toxicity (repeated exposure):</b>	No data available
<b>Chemicals listed on NTP, IARC or OSHA as a</b>	None listed

### Additional information:

These mixtures contain silica, a known carcinogen. Inhalation is the route of entry into the body that can lead to the development of Silicosis. These water-based, premixed products should be non-toxic during recommended use.

Some of the pigments may contain small amounts of various forms of metals (Sn, Mn, TiO<sub>2</sub>, Cu, Zr, V, Fe, Co, Cr, Ni, Cd), some of which are considered carcinogenic. The metals in pigments may be in the form of frits, spinel or formed from high temperature calcination that may have a different bioavailability than the metal itself. Silica and pigments in the glaze should be non-toxic during recommended use.

## 12. ECOLOGICAL INFORMATION (NON-MANDATORY)

<b>Ecotoxicity:</b>	Not expected to be harmful to aquatic organisms
<b>Persistence and degradability:</b>	No data available
<b>Bioaccumulative potential:</b>	No data available
<b>Aquatic / terrestrial warnings:</b>	No data available
<b>Mobility in soil:</b>	No data available
<b>Other adverse effects:</b>	No data available

**13. ECOLOGICAL INFORMATION (NON-MANDATORY)**

<b>Disposal instructions:</b>	Dispose of in accordance with local regulations.
<b>Local disposal regulations:</b>	Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.
<b>Hazardous waste code:</b>	None known. Waste codes should be assigned by the user based on the application for which the product was used.
<b>Contaminated packaging:</b>	Offer rinsed packaging materials to local recycling facilities.
<b>Waste residues:</b>	Do not discharge into drains, water courses or onto the ground.

**14. TRANSPORTATION INFORMATION (NON-MANDATORY)**

	DOT	IMDG	IATA
<b>UN/ID number:</b>	Not regulated	Not regulated	Not regulated
<b>Proper shipping name:</b>	Not applicable		
<b>Transport hazard class:</b>	N/A	N/A	N/A
<b>Packing group (if applicable):</b>	N/A	N/A	N/A
<b>Environmental provisions:</b>	No data	No data	No data
<b>Special precautions:</b>	None	None	None
<b>Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code</b>	No data		
<b>Emergency Response Guide Number:</b> No data	<b>EmS-No:</b>	No data	

**Pictograms**

<b>US:</b> None	<b>IATA; IMDG:</b> None	<b>Marine Pollutant:</b> None
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**15. REGULATORY INFORMATION (NON-MANDATORY)**

U.S. Federal Regulations:	
<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D):</b>	Not regulated
<b>CERCLA (Superfund) reportable quantity (lbs.) (40 CFR 302.4)</b>	Not regulated
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):</b>	Not regulated
<b>Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):</b>	Not regulated

Chemical Name:	CAS Number:	Reportable Quantity:	Threshold planning quantity:	Threshold planning quantity, lower value:	Threshold planning quantity, upper value:
None	X	X	X	X	X
Superfund Amendments and Reauthorization Act of 1986 (SARA)					
<b>SARA 304 Emergency release notification:</b>	No data				
<b>SARA 311/312 (40 CFR 370) Hazardous Chemical:</b>	No data				
<b>SARA 313 (TRI reporting):</b>	<u>Chemical Name:</u> None	<u>CAS Number:</u> None	<u>% by wt.</u> None		
<b>Drug Enforcement Administration (DEA) (21 CFR 1308.11-15):</b>	No data				
<b>Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (Haps) List:</b>	No data				

<b>Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):</b>	No data
<b>Safe Drinking Water Act (SDWA):</b>	No data
<b>Canadian Domestic Substances List (DSL):</b>	No data
<b>State Regulations</b>	
<b>TSCA:</b>	This product is manufactured in compliance with all provisions of the Toxic Substances Control Act, 15 U.S. C. 2601 et. Seq.
<b>FDA:</b>	21 CFR 175.105
<b>SARA/Title III:</b>	This product does not contain any substances at or above the reported threshold under Section 313, based on available data.
<b>Conforms to Non-Toxic ASTM-4236:</b>	Products contain no materials in sufficient quantities to be toxic or injurious to humans or to cause acute or chronic health problems. These products are labeled in accordance with the voluntary chronic hazard labeling standard ASTM D-4236. In addition, there is no physical hazard as defined within 29 CFR Part 1910.1200(c).
<b>California Proposition 65 Warning:</b>	This product contains the following chemicals that are known to the state of California to cause cancer, birth defects, or other reproductive harm: Silica (Quartz), Titanium Dioxide, Cobalt, Nickel and Chromium are listed on the carcinogen list.
<b>HMIS III Rating:</b>	Health=1, Flammability=0, Reactivity=0
Unless a concentration is specified in Section 2 of the SDS, the above chemical(s) are present in trace amounts.	

**16. OTHER INFORMATION**

The recommendations and information contained in this SDS are compiled from sources believed to represent the most current information available when the SDS was prepared. However, the manufacturer / distributor of this product does not provide any warranty, guarantee of representation as to the correctness or sufficiency of this information. If this material is used in large amounts and/or an unusual manner, the user is obliged to determine what safety measures are appropriate, including the applicable and relevant workplace and environmental regulations pertaining to handling, use and disposal

<b>Table of Abbreviations</b>			
<b>ACGIH:</b>	American Conference of Governmental Industrial Hygienists	<b>LD:</b>	Lethal Dose
<b>ANSI:</b>	American National Standards Institute	<b>MARPOL:</b>	Marine Pollution
<b>ASTM:</b>	American Society for Testing Materials	<b>mg / kg:</b>	Milligram per Kilogram
<b>°C:</b>	Degrees Centigrade	<b>mm:</b>	Millimeter
<b>CAA:</b>	Clean Air Act	<b>MSHA:</b>	Mine Safety and Health Administration
<b>CAS:</b>	Chemical Abstract Service	<b>N/A:</b>	Not Applicable
<b>CERCLA:</b>	Comprehensive Environmental Response, Compensation & Liability Act	<b>NFPA:</b>	National Fire Protections Association
<b>CFR:</b>	Code of Federal Regulations	<b>NIOSH:</b>	National Institute for Occupational Safety and Health
<b>CPR:</b>	Controlled Products Regulations	<b>NTP:</b>	National Toxicology Program
<b>DEA:</b>	Drug Enforcement Act	<b>OEL:</b>	Over Exposure Limit
<b>DOT:</b>	Department of Transportation	<b>OSHA:</b>	Occupational Safety and Health Administration
<b>DSL:</b>	Canadian Domestic Substances List	<b>PEL:</b>	Permissible Exposure Limits
<b>EmS:</b>	Emergency Medical Goods Services	<b>ppm</b>	Parts Per Million
<b>EPA:</b>	Environmental Protection Agency	<b>SARA</b>	Superfund Amendment and Reauthorization Act
<b>°F:</b>	Degrees Fahrenheit	<b>STEL</b>	Short-Term Exposure Limit
<b>FDA:</b>	Food & Drug Administration	<b>SDS:</b>	Safety Data Sheet
<b>g/l:</b>	Grams per Liter	<b>SDWA:</b>	Safe Drinking Water Act
<b>HAPS:</b>	Hazardous Air Pollutants	<b>TLV:</b>	Threshold Limit Value
<b>Hg:</b>	Mercury	<b>TRI:</b>	Toxics Release Inventory
<b>HMIS:</b>	Hazardous Materials Identification System	<b>TSCA</b>	Toxic Substances Control Act
<b>HNOC:</b>	Hazard(s) Not otherwise classified	<b>TWA</b>	Time – Weighted Average
<b>IARC:</b>	International Agency for Research on Cancer	<b>U.N.</b>	United Nations
<b>IATA:</b>	International Air Transport Association	<b>WHMIS</b>	Workplace Hazardous Materials Information System
<b>ID:</b>	Identification / Identity	<b>&gt;</b>	Greater Than
<b>IDLH:</b>	Immediate Danger to Life or Health	<b>&lt;</b>	Less Than
<b>IMDG:</b>	International Maritime Dangerous Goods	<b>73/78:</b>	1973 & 1978
<b>LC:</b>	Lethal Concentration		

**UPDATED: January 1, 2024**

**END OF SAFETY DATA SHEET**