

SAFETY DATA SHEET**PRODUCT NAME: UNDERGLAZE****1 – IDENTIFICATION OF MATERIAL AND SUPPLIER**

SUPPLIER: _____**ADDRESS:** _____**TELEPHONE:** _____**FACSIMILIE:** _____**EMERGENCY:** _____**WEB SITE:** _____**E-MAIL:** _____**SYNONOMYS: PASLER UNDERGLAZES SET**PUC12-02, PUC24-02, PU012-4, PU014-4, PU002-4, PU019-4, PU021-4, PU003-4, PU017-4,
PU005-4, PU016-4, PU015-4, PU004-4, PU001-4, PU022-4, PU011-4, PU007-4, PU024-4,
PU013-4, PU023-4, PU010-4, PU018-4, PU008-4, PU006-4**USES: CERAMIC UNDERGLAZES ISSUED****DATE:** 5 May 2024**2 – HAZARDS IDENTIFICATION**

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO CRITERIA OF NOHSC

Each underglaze 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.

A few pigments may contain small amounts of zirconium encapsulated cadmium and other metals. Other ingredients present have no known acute toxicity.

GHS LABEL ELEMENTS:**HAZARD STATEMENTS:** None allocated**PRECAUTIONARY STATEMENTS:** None allocated**NOT CLASSIFIED AS DANGEROUS GOODS BY THE CRITERIA OF THE ADG CODE****UN NUMBER:** None allocated**PACKING GROUP:** None allocated**HAZCHEM CODE:** None allocated**DG CODE:** None allocated**SUBSIDURARY RISK:** None allocated**3 – COMPOSITION / INFORMATION ON INGREDIENTS**

ENTITY	CAS NO	CLASSIFICATION	%
SILICA	14808-60-7	STOT RE 2 H373; STOT RE 1 H372; Carc. 1A H350	0-13.4%
ZINC OXIDE	1314-13-2	Aquatic Acute 1 H400, Aquatic Chronic H410	0 - 0.2%

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ZIRCONIUM SILICATE	10101-52-7	Eye Irrit. 2 H319, Skin Irrit. 2 H315	0-9%
KAKOLIN	1332-58-7	SKkin Irrit. 2 H315: Eye Irrit. 2 H319: STOT RE2 H373	<16%

* The remaining ingredients are not listed as they are either not classified as hazardous or fall below GHS cut off levels.

4 – FIRST AID MEASURES

EYE:	May cause irritation. Flush eyes with large quantities of water for at least 15 minutes. If irritation persists after washing, contact a doctor.
INHALED:	May cause irritation. Remove from exposure.
SKIN:	May cause irritation. Wash skin with soap and water.
SWALLOWED:	Contact a doctor. Do not induce vomiting.
ADVICE TO DOCTOR:	Treat symptomatically.

5 – FIRE FIGHTING MEASURES

FLAMMABILITY:	Non Flammable.
FIRE & EXPLOSION:	No fire or explosion hazard exists.
EXTINGUISHING:	Use an extinguishing agent suitable for the surrounding fire.
HAZCHEM CODE:	None allocated.

6 – ACCIDENTAL RELEASE MEASURES

SPILLAGE:	N/A
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7 – STORAGE AND HANDLING

STORAGE:	Store in a cool, dry, well ventilated area, removed from oxidizing agents, acids and foodstuffs.
HANDLING:	Before using carefully read the product label. Use of safe practices is recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE STANDARDS:

INGREDIENT	TWA		STEL		ACGIH TLV	
	ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
CADMIUM COMPOUNDS (as Cd)		0.01				
KAOLIN	-	10	-	-	-	3

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CALCINED ALUMINA	-	-	-	-	-	1
SILICA	-	0.1	-	-	-	0.1

Remaining main underglaze pencil ingredients do not have formal Exposure Limits. Some pigments contain metals that have exposure limits (eg Co, Cu, Cr, Mn) but are used in low levels. The underglaze pencils are non-hazardous solid mixtures of ceramic materials containing non-leaded frits, clay, and other minerals and color pigments. These mixtures have no TWA or TLV.

BIOLOGICAL LIMITS: No biological limits allocated.

ENGINEERING CONTROLS: Not required.

PPE

Eye / Face	Not normally needed.
Hands	Not normally needed.
Body	Not normally needed.
Respiratory	Not normally needed.

9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Viscous Colored Liquid
ODOUR:	Negligible
BOILING POINT:	N/A
MELTING POINT:	> 400°C
VAPOUR PRESSURE:	NOT AVAILABLE
SPECIFIC GRAVITY:	1.2-1.45@25oC
FLASH POINT:	N/A
FLAMMABILITY LIMITS:	Non Flammable
SOLUBILITY IN WATER:	Negligible
VISCOSITY:	N/A
pH:	7.0-8.5
% VOLATILES	7 – 14%
EVAPORATION RATE	N/A
UPPER EXPLOSION LIMIT	N/A
LOWER EXPLOSION LIMIT	N/A

10 – STABILITY AND REACTIVITY

REACTIVITY:	None known.
CHEMICAL STABILITY:	Stable.
CONDITIONS TO AVOID:	Fumes from firing in kiln. Avoid contact with incompatible substances.
INCOMPATIBLE MATERIAL:	None known.
HAZARDOUS DECOMPOSITION:	None known.
HAZARDOUS REACTIONS:	None known.

11 – TOXICOLOGICAL INFORMATION

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HEALTH HAZARD SUMMARY: Under normal conditions of use, adverse health effects are not anticipated. Due to the form of the products, an inhalation hazard is not anticipated.

These underglaze pencils contain silica, a known carcinogen. Inhalation is the route of entry into the body that can lead to the development of Silicosis. These solid premixed products should be non-toxic during recommended use. Some of the pigments may contain small amounts of various forms of metals (Sn, Mn, Ti, Zr, Co, Cr, Ni, Cd, Pr), some of which are considered carcinogenic. The metals in pigments may be in 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 underglaze pencils should be non-toxic during recommended use.

EYE: Low irritants. Contact may result in irritation, lacrimation and redness.

INHALATION: Exposure considered unlikely. Due to the form of the products and nature of use, an inhalation hazard is not anticipated with normal use.

SKIN: Low irritants. Prolonged or repeated contact may result in mild irritation.

INGESTION: Low toxicity. Ingestion is considered unlikely due to the form of the products. However ingestion via hand-mouth transfer may result in gastrointestinal irritation, nausea and vomiting. Maintain good personal hygiene standards.

TOXICITY DATA: QUARTZ (SILICA CRYSTALLINE) (14808-60-7)
LCLo (inhalation) 300 µg/m³/10 years (human)
TCLo (inhalation) 16,000,000 particles/ft³/8 hrs/17.9 years
(human fibrosis)

CADMIUM COMPOUNDS

LC50 (inhalation) 25 mg/m³/30M (rat)
LCLo (inhalation) 39 mg/m³/20M (human)
LD50 (ingestion) 890 mg/kg (mouse)
LD50 (intraperitoneal) 5700 µg/kg (mouse)
LD50 (intravenous) 5 mg/kg (rabbit)
LDLo (ingestion) 70 mg/kg (rabbit)
LDLo (subcutaneous) 6 mg/kg (rabbit)
TCLo (inhalation) 88 µg/m³/8.6 years (man)

12 – ECOLOGICAL INFORMATION

ENVIRONMENT: Limited eco-toxicity data was available for these products at the time of this report. Ensure appropriate measures are taken to prevent these products from entering the environment.

13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: For small amounts dispose of to an approved landfill site. Contact the manufacturer for additional information if larger amounts are involved.

LEGISLATION: Dispose of in accordance with relevant local legislation.

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14 – TRANSPORTATION

NOT CLASSIFIED AS DANGEROUS GOODS BY THE CRITERIA OF THE ADG CODE.

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG/IMO)	AIR TRANSPORT (IATA/ICAO)
UN NUMBER	None Allocated	None Allocated	None Allocated
PROPER SHIPPING NAME	Water based artist and hobby ceramic glazes	Water based artist and hobby ceramic glazes	Water based artist and hobby ceramic glazes
DG CLASS / DIVISION	None Allocated	None Allocated	None Allocated
SUBSIDIARY RISKS	None Allocated	None Allocated	None Allocated
PACKING GROUP	None Allocated	None Allocated	None Allocated
HAZCHEM CODE	None Allocated	None Allocated	None Allocated

15 – REGULATORY INFORMATION

INVENTORY LISTINGS:

AUSTRALIA:

All components are listed on AICS or are exempt.

USA:

Silica is listed on IARC, OSHA and NTP carcinogen list.

All ingredients are on TSCA inventory.

California Proposition 65 - Proposition 65: Silica (Quartz), Cobalt, Chromium and Cadmium are listed on the carcinogen list.

CANADA:

All ingredients are on DSL inventory.

WHMIS – Not controlled.

EUROPE:

All ingredients are on EC inventory.

CHEMICAL SAFETY ASSESSMENT:

USA:

Conforms to ASTM D 4236 This material has been evaluated under the provisions of LHAMA (Labeling of Hazardous Art Material Act). This product is judged to be non-toxic and non-flammable under proposed use conditions. No special warning is required under the provisions of LHAMA or California Proposition 65 during use.

EU:

Does not require a hazardous warning label according to the EU guidelines/Dangerous Chemicals Ordinance.

16 – OTHER INFORMATION

ADDITIONAL INFORMATION:

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment made.

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DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

End of SDS