

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

SECTION 1 - PRODUCT IDENTIFICATION AND USE

PRODUCT IDENTIFIER: Kiwi Underglaze
PRODUCT NATURE: Liquid Inorganic Ceramic Glaze
PRODUCT USE: Ceramic colourant intended to be applied with a brush to ceramicware, and fired in a kiln.
SUPPLIER: Waikato Ceramics Ltd T/A Kiwi Underglaze
STREET ADDRESS: 1961 Orini Road
CITY: Taupiri
COUNTRY: New Zealand
TELEPHONE: +64 27 4477204

EMERGENCY CONTACT FOR MEDICAL PROFESSIONALS

In the event of a medical emergency involving this product, further product information is available to qualified health professionals upon request.

EMERGENCY TELEPHONE: +64 27 4477204 (New Zealand)

EMAIL: sales@kiwiunderglaze.com

SECTION 2 - HAZARD IDENTIFICATION

CLASSIFICATION OF THE MIXTURE The product is a **mixture**, and is not a substance.
According to the Globally Harmonized System (GHS) the **mixture is not classified as hazardous**

LABEL ELEMENTS **PICTOGRAMS:** None required
SIGNAL WORD: None required
HAZARD STATEMENTS: None required

OTHER HAZARDS This product is a water-based liquid underglaze intended for application by brush or similar low-energy methods. It is not supplied in, nor intended to be used in, a dry powder form. Application methods that generate airborne respirable particles (such as high-energy spraying or sanding of dried material) may create an inhalation hazard and should be avoided or appropriately controlled.

The product may contain crystalline silica (quartz), which is classified as a carcinogen by inhalation. However, due to the liquid form of the product and its intended method of use, the generation of respirable airborne dust is not expected under normal conditions. As such, this hazard is not considered relevant to the product in its supplied form.

Exposure to respirable crystalline silica may occur if the product is allowed to dry and is subsequently sanded, or if it is applied using high-energy spray methods capable of generating airborne particulates. These uses are outside the typical and intended application and appropriate precautions should be taken if such conditions are present.

Some colours may contain encapsulated cadmium pigments. In these pigments, cadmium is incorporated within a stable zircon crystal structure, significantly reducing solubility and bioavailability under normal conditions of use.

Some colours contain metal-containing pigments (e.g. cobalt, copper, chromium, zinc or vanadium compounds). These components may be hazardous to aquatic organisms in isolation; however, in the finished product they are present at low concentrations within a liquid matrix and are not expected to present an environmental hazard under normal conditions of use.

SECTION 3 - COMPOSITION

MIXTURE This product is a water-based mixture of inorganic ceramic materials including clays, minerals and pigments.

Inorganic materials as follows:	CAS No.	GHS CLASSIFICATION OF MATERIAL
Clays (Kaolins)	10-30%	1332-58-7
Crystalline Silica	<10%	14808-60-7
Feldspar	10-30%	68476-25-5
Zinc Oxide	<2%	1314-13-2
Ceramic stain (complex inorganic pigments)	<10%	Not assigned (mixture). See note below.
Encapsulated cadmium pigment (zircon inclusion, present in some colours only)	<10%	102184-95-2

The concentrations shown are typical ranges and may vary between colours. Certain components, including crystalline silica and metal-containing pigments, may be present in forms that are classified as hazardous in isolation. However, in the finished product, these components are incorporated into a water-based liquid matrix and, under normal conditions of use, are not expected to present a hazard.

The product is intended for application by brush or similar low-energy methods and is not supplied in, nor intended to be used in, a dry powder form. Under these conditions, the generation of respirable airborne particulates is not expected.

Exposure to respirable crystalline silica may occur if the product is allowed to dry and is subsequently sanded, or if it is applied using high-energy spray methods capable of generating airborne particulates. Appropriate precautions should be taken if such conditions are present.

Encapsulated cadmium pigments, where present, consist of cadmium compounds incorporated within a stable zircon crystal structure, significantly reducing solubility and bioavailability compared to non-encapsulated cadmium compounds.

Components not listed are either non-hazardous, present below applicable GHS disclosure thresholds, or are not required to be disclosed.

SECTION 4 - FIRST AID MEASURES

SKIN	Wash affected area thoroughly with soap and water. If irritation occurs seek medical attention.
INHALATION	If inhaled, remove person from the contaminated area. Seek medical attention. If in eyes, flush continuously with running water. Remove contact lenses. Continue flushing for several minutes until the
EYE CONTACT	contaminants are removed. If symptoms develop, seek medical attention.
INGESTION	Do not induce vomiting. Wash out mouth thoroughly with water. Seek medical attention.

FOR ADVICE IN AN EMERGENCY CONTACT THE POISONS HOTLINE ON (+64) 0800 764 766 (NEW ZEALAND)

SECTION 5 - FIRE & EXPLOSION HAZARD OF MATERIAL

FLAMMABILITY	No	AUTOIGNITION TEMPERATURE	N/A
MEANS OF EXTINCTION	N/A	HAZARDOUS COMBUSTION PRODUCTS	N/A
SPECIAL PROCEDURES	N/A	EXPLOSION DATA	
FLASHPOINT AND METHOD	N/A	SENSITIVITY TO MECHANICAL IMPACT	N/A
UPPER EXPLOSION LIMIT % BY VOLUME	N/A	SENSITIVITY TO STATIC DISCHARGE	N/A

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS.

Prevent product from entering drains and waterways.

Contain spillage, then cover/absorb spill with non-combustible absorbent material, collect and place in suitable containers for disposal.

See Sections 8 and 13 for exposure controls and disposal.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING	Avoid inhalation or contact with skin and eyes. Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of dust in the working environment. Maintain high standards of personal hygiene eg. washing hands.
CONDITIONS FOR SAFE STORAGE	Store in a cool, dry, well ventilated area, out of direct sunlight and moisture. Store in suitable, labeled containers. Keep containers tightly closed and out of reach of children.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended.

PPE	
Eye / Face	Wear splash-proof goggles.
Hands	Wear PVC or rubber gloves.
Body	When using large quantities or where heavy contamination is likely, wear coveralls.
Respiratory	Not required under normal conditions of use, but wear a suitable respiratory mask if product is dry and airborne

SECTION 9 - PHYSICAL DATA

PHYSICAL STATE	Liquid	ODOUR & APPEARANCE	Minor odour. Sold as a liquid in various quantities.
ODOUR THRESHOLD	N/A	VAPOUR DENSITY	N/A
SPECIFIC GRAVITY	1.2	VAPOUR PRESSURE	N/A
EVAPORATION RATE	None if sealed	FREEZING POINT	0 degrees
BOILING POINT	100 degrees	SOLUBILITY IN WATER	Contents are not soluble in the carrier water
% VOLATILE BY VOLUME	N/A	COEFF OF WATER/OIL DISTRIBUTION	N/A
pH	Neutral		

SECTION 10 - REACTIVITY DATA

CHEMICAL STABILITY	Yes
NON-COMPATIBILITY TO OTHER SUBSTANCE	No

SECTION 11 - TOXICOLOGICAL PROPERTIES OF MATERIALS

INFORMATION ON HAZARD CLASSES

ACUTE TOXICITY	The product is not intended to be used in dry powder form. Based on available data, the product is not expected to be acutely toxic under normal conditions of use.
SKIN CORROSION / IRRITATION	Prolonged or repeated contact may cause mild irritation in sensitive individuals.
RESPIRATORY SENSITISATION	Not expected to be a respiratory sensitiser under normal conditions of use.
SKIN SENSITISATION	Prolonged or repeated contact may cause mild irritation in sensitive individuals.
GERM CELL MUTAGENICITY	Based on available data, classification criteria are not met.
CARCINOGENICITY	This product contains crystalline silica (quartz), which is classified as a carcinogen by inhalation. However, due to the liquid form of the product and its intended method of use, exposure to respirable crystalline silica is not expected under normal conditions. As such, the product is not considered to present a carcinogenic hazard in its supplied form.
REPRODUCTIVE TOXICITY	Some colours may contain encapsulated cadmium pigments. These pigments consist of cadmium compounds incorporated within a stable zircon crystal structure, significantly reducing solubility and bioavailability. Based on available data, classification criteria are not met for the product.

STOT - SINGLE EXPOSURE	Based on available data, classification criteria are not met.
STOT - REPEATED EXPOSURE	Prolonged inhalation of respirable crystalline silica dust may cause lung damage. However, due to the liquid form of the product and its intended method of use, such exposure is not expected under normal conditions.
ASPIRATION HAZARD	Based on available data, classification criteria are not met.

SECTION 12 - ECOLOGICAL INFORMATION

TOXICITY	Based on available data, the product is not expected to present an environmental hazard under normal conditions of use. Some colours contain metal-containing pigments (e.g. cobalt, copper, chromium, zinc or vanadium compounds) which may be hazardous to aquatic organisms in isolation. However, in the finished product these components are present at low concentrations within a liquid matrix and are not expected to present an environmental hazard under normal conditions of use.
PERSISTENCE AND DEGRADABILITY	No information provided
MOBILITY IN SOIL	No information provided
BIOACCUMULATIVE POTENTIAL	No information provided
OTHER ADVERSE EFFECTS	No information provided

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL	For small amounts, absorb with sand, vermiculite or similar and dispose of to an approved landfill site. For large quantities, contact the manufacturer/supplier for additional information. Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result.
LEGISLATION	Dispose of in accordance with relevant local legislation.

SECTION 14 - TRANSPORT INFORMATION

This product is not classified as Dangerous Goods according to transport regulations.

IMDG (Sea transport):	Not identified as a dangerous good
IATA (Air transport):	Not identified as a dangerous good
UN NUMBER	Not identified as a dangerous good
PROPER SHIPPING NAME	Not identified as a dangerous good
UN DANGEROUS GOODS CLASS	Not identified as a dangerous good
UN PACKING GROUP	Not identified as a dangerous good
ENVIRONMENTAL HAZARD	Based on available data, the product is not expected to present an environmental hazard under normal conditions of use. Some colours contain metal-containing pigments (e.g. cobalt, copper, chromium, zinc or vanadium compounds) which may be hazardous to aquatic organisms in isolation. However, in the finished product these components are present at low concentrations within a liquid matrix and are not expected to present an environmental hazard under normal conditions of use.
SPECIAL PRECAUTIONS	None

SECTION 15 - REGULATORY INFORMATION

CLASSIFICATIONS	Criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals (GHS Revision 7).
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SECTION 16 - OTHER INFORMATION

PPE	The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as form of product, 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 is made.
HEALTH EFFECTS	It should be noted that the effects from exposure to this product will depend on several factors including: form of product; frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.