



TKB TRADING, LLC  
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## SAFETY DATA SHEET

Revision Date: 04-29-2021

### SECTION 1. IDENTIFICATION

Product name	Crucible Gold
Product code	KE-202

#### Manufacturer or supplier's details


Company name of supplier	TKB Trading, LLC
Address	1101 9 <sup>th</sup> Avenue Oakland, CA 94606
Telephone	(510) 922-9027

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS classification in accordance with 29 CFR 1910.1200

Acute toxicity (Oral) : Category 4

#### GHS label elements

Hazard pictograms : 

Signal Word : Warning

Hazard Statements : H302 Harmful if swallowed.

#### Precautionary Statements

<b>Prevention:</b> P264  P270	Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product.
<b>Response:</b> P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
<b>Disposal:</b> P501	Dispose of contents/ container to an approved waste disposal plant.



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Hazardous ingredients which must be listed on the label:

Copper

#### Other hazards

None known.

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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Hazardous ingredients

Chemical name	CAS-No.	Concentration (% w/w)
Copper	7440-50-8	$\geq 70 - < 90$
Zinc	7440-66-6	$\geq 10 - < 20$
Silica	7631- 86-9	$\geq 1 - < 5$

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## SECTION 4. FIRST AID MEASURES

- General advice : Take the victim into fresh air.  
Do not leave the victim unattended.  
Move out of dangerous area.  
Show this material safety data sheet to the doctor in attendance.
- If inhaled : If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with soap and plenty of water.
- In case of eye contact : Flush eyes with water as a precaution.  
Remove contact lenses.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : Harmful if swallowed.



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#### SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Special powder against metal fire Dry sand ABC powder
Unsuitable extinguishing media	: Water High volume water jet
Specific hazards during fire fighting	: Do not allow run-off from fire fighting to enter drains or water courses.
Further information	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for fire-fighters	: Wear self-contained breathing apparatus for firefighting if necessary.

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#### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures	: Use personal protective equipment. Evacuate personnel to safe areas. Avoid dust formation. Avoid breathing dust.
Environmental precautions	: Prevent product from entering drains. Prevent further leakage or spillage if safe to do. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	: Use mechanical handling equipment. Pick up and transfer to properly labeled containers. Keep in suitable, closed containers for disposal.

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#### SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	: Normal measures for preventive fire protection.
Advice on safe handling	: Avoid creating dust.



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- Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.
  - Avoid formation of respirable particles.
  - Do not breathe vapors/dust.
  - For personal protection see section B.
  - Smoking, eating and drinking should be prohibited in the application area.
  - Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage :
- Electrical installations / working materials must comply with the technological safety standards.
  - Keep away from sources of ignition – No smoking.
  - Do not store near combustible materials.
  - Keep container tightly closed in a dry and well-ventilated place.
  - Electrical installations / working materials must comply with the technological safety standards.
- Technical measures/Precautions :
- Material to avoid :
- Protect from humidity and water.
  - Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. Do not store together with oxidizing and self-igniting products.
- Further information on storage stability :
- Keep in a dry place.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Ingredients with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Copper	7440-50-8	TWA	1 mg/ m <sup>3</sup> (Copper)	ACGIH
		TWA (dust and mist)	1 mg/ m <sup>3</sup> (Copper)	NIOSH REL
		TWA	1 mg/ m <sup>3</sup> (Copper)	OSHA P0
		TWA	0.2 mg/ m <sup>3</sup> (Copper)	ACGIH
		TWA	0.1 mg/ m <sup>3</sup> (Copper)	OSHA P0
		TWA (dust and mist)	1 mg/ m <sup>3</sup> (Copper)	ACGIH



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		TWA (Fumes)	0.2 mg/ m <sup>3</sup> (Copper)	ACGIH
		TWA (dust)	1 mg/ m <sup>3</sup> (Copper)	NIOSH REL
		TWA (mist)	1 mg/ m <sup>3</sup> (Copper)	NIOSH REL
		TWA (dust and mist)	1 mg/ m <sup>3</sup> (Copper)	OSHA Z-1
		TWA (fumes)	0.1 mg/ m <sup>3</sup> (Copper)	OSHA Z-1
		TWA (fumes)	0.1 mg/ m <sup>3</sup> (Copper)	OSHA P0
		TWA (dust and mist)	1 mg/ m <sup>3</sup> (Copper)	OSHA P0
Zinc	7440-66-6	TWA (total dust)	50 Million particles per cubic foot	OSHA Z-3
		TWA (total dust)	15 mg/ m <sup>3</sup>	OSHA Z-3
		TWA (respirable fraction)	5 mg/m <sup>3</sup>	OSHA Z-3
		TWA (respirable fraction)	15 million particles per cubic foot	OSHA Z-3
Silica	7631-86-9	TWA (dust)	20 million particles per cubic foot (Silica)	OSHA Z-3
		TWA (dust)	80 mg/m <sup>3</sup> / %SiO <sub>2</sub> (Silica)	OSHA Z-3
		TWA	6 mg/m <sup>3</sup> (Silica)	NIOSH REL

**Personal protective equipment**

- Respiratory protection : Use suitable breathing protection if workplace concentration requires.  
Respirator with a dust filter  
P1 filter
- Hand protection material : Leather
- Remarks : Leather gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. The exact break through time can be obtained from the protective glove producer and this has to be observed. Recommend preventive skin protection. The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye protection : Safety glasses
- Skin and body protection : Long sleeved clothing.  
Safety shoes  
Dust impervious protective suit



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Hygiene measures

- Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- : General industrial hygiene practice.
- Do not smoke.
- Wash hands before breaks and at the end of workday.
- Keep away from food and drink.
- Keep away from tobacco products.
- When using do not eat or drink
- When using do not smoke
- Wash hands before breaks and at the end of workday.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES.

Appearance	: Powder
Color	: Gold
Odor	: odorless
Odor Threshold	: No data available
pH	: No data available
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: No data available
Flash point	: No data available
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit/Upper flammability limit	: No data available
Lower explosion limit/Lower flammability limit	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Solubility(ies)	: No data available
Partition coefficient: n-octanol/water	: No data available
Autoignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available

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## SECTION 10. STABILITY AND REACTIVITY



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Reactivity	: No decomposition if stored and applied as directed. No decomposition if stored and applied as directed.
Chemical stability	: No decomposition if stored and applied as directed
Possibility of hazardous reactions	: Stable under recommended storage conditions. No hazards to be specially mentioned. No decomposition if stored and applied as directed. Dust may form explosive mixture in air.
Conditions to avoid	: No data available

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## SECTION 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

Harmful if swallowed.

### Components:

#### **Copper:**

Acute oral toxicity : Assessment. The component/mixture is moderately toxic after single ingestion.

#### **Zinc:**

Acute oral toxicity : (Rat): > 2,000 mg/kg  
Acute inhalation toxicity : LC50 (Rat): 5.41 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

#### **Silica:**

Acute oral toxicity : LD50 (Rat): 5,000 mg/kg  
(Mouse): 15,000 mg/kg  
Acute inhalation toxicity : (Rat): 0.139 mg/l  
Exposure time: 4 h  
Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

### **Skin corrosion/irritation**

Not classified based on available information.

### Components:

#### **Copper:**

Result: May cause skin irritation in susceptible persons.

### **Serious eye damage/eye irritation**



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Not classified based on available information.

**Components:**

**Copper:**

Result: Eye irritation

**Respiratory or skin sensitization**

**Skin sensitization**

Not classified based on available information.

**Respiratory sensitization**

Not classified based on available information.

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**IARC**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Reproductive toxicity**

Not classified based on available information.

**STOT- single exposure**

Not classified based on available information.

**Aspiration toxicity**

Not classified based on available information.

**Further information**

**Components:**





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**Copper:**

Remarks: No data available

**Silica:**

Remarks: No data available.

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**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Components:**

**Copper:**

M-Factor (Acute aquatic toxicity) : 10

**Ecotoxicology Assessment**

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

**Zinc:**

**Ecotoxicology Assessment**

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

**Silica:**

Toxicity to daphnia and other aquatic invertebrates : (Daphnia): 7,600 mg/l

Toxicity to algae : (Chlorella pyrenoidosa): 440 mg/l

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Other adverse effects**

No data available



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#### Components:

##### **Copper:**

Additional ecological information : An environment hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

##### **Silica:**

Additional ecological information : No data available

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## SECTION 13. DIPOSAL CONSIDERATIONS

### **Disposal methods**

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.  
In accordance with local and national regulations.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.  
In accordance with local and national regulations.

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## SECTION 14. TRANSPORT INFORMATION

### **Domestic regulation**

#### **49 CFR**

Not regulated as a dangerous good

### **International Regulations**

#### **IATA-DGR**

UN/ID No. : UN 3077  
Proper shipping name : Environmentally hazardous substance, solid, n.o.s. (Copper metal powder)  
Class : 9  
Packing group : III  
Labels : Class 9 – Miscellaneous dangerous substances and articles



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- Packing instruction (cargo aircraft) : 956
- Packing instruction (passenger aircraft) : 956
- IMDG-Code**
- UN number : UN 3077
- Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper metal powder)
- Class : 9
- Packing group : III
- Labels : 9
- EmS Code : F-A, S-F
- Marine pollutant : yes
- Remarks : IMDG Code segregation group 7 – Heavy metals and their salts
- remarks : For single packagings <=5L / 5kg, or combination packaging containing inner packagings <= 5L/ 5kg net per inner packaging, SV375 ADR, 2.10.2.7 IMDG-Code, A197 IATA-DGR may be applied.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not appliance for product as supplied.

**SECTION 15. REGULATORY INFORMATION**

**EPCRA – Emergency Planning and Community Right-to-Know.**

**CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)
Copper	7440-50-8	5000

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 302 Extremely Hazardous Substances Threshold Planning Quantity.**

This material does not contain any components with a section 302 EHS TPQ.

- SARA 311/312 Hazards** : Acute toxicity (any route of expose)
- SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:



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Copper	7440-50-8	>=70 - < 90 %
Zinc	7440-66-6	>= 10 - <20 %

**Clean Air Act**

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpart. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112® for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

**Clean Water Act**

This product does not contain any Hazardous Substances listed under the U.S. Clean Water Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. Clean Water Act, Section 311, Table 117.3.

This product contains the following toxic pollutants listed under the U.S. Clean Water Act Section 307

Copper	7440-50-8	78.7489 %
Zinc	7440-66-6	13.3971 %

**US State Regulations**

**Massachusetts Right To Know**

Copper	7440-50-8
Zinc	7440-66-6
Silica	7631-86-9

**Pennsylvania Right To Know**

Copper	7440-50-8
Zinc	7440-66-6
Silica	7631-86-9
Aluminum	7429-90-5

**California Prop. 65**

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.



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**WARNING:** This product can expose you to chemicals including lead and cadmium which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**California List of Hazardous Substances**

Copper	7440-50-8
Zinc	7440-66-6
Silica	7631-86-9

**California Permissible Exposure Limits for Chemical Contaminants**

Copper	7440-50-8
Zinc	7440-66-6
Silica	7631-86-9

**The ingredients of this product are reported in the following inventories:**

- DSL : All components of this product are on the Canadian DSL
- TSCA : On TSCA Inventory

**TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

**SECTION 16. OTHER INFORMATION**

**Full text of other abbreviations**

- ACGIH : USA. ACGIH Threshold Limit Values (TLV)
- NIOSH REL : USA. NIOSH Recommended Exposure Limits
- OSHA P0 : USA. OSHA – TABLE Z-1 Limits for Air Contaminants – 1910.1000
- OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) – Table Z-1 Limits for Air Contaminants
- OSHA Z-3 : USA. Occupational Exposure Limits (OSHA) – Table Z-3 Mineral Dusts
- ACGIH / TWA : 8-hour, time-weighted average
- NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek.
- OSHA P0 / TWA : 8-hour time weighted average



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OSHA Z-1 / TWA : 8-hour time weighted average  
OSHA Z-3 / TWA : 8-hour time weighted average

AICS- Australian Inventory of Chemical Substances; ASTM – American Society for the Testing of Materials; bw – Body weight; CERCLA – Comprehensive Environment Response, Compensation, and Liability Act; CMR – Carcinogen, Mutagen or Reproductive Toxicant; DIN – Standard of the German Institute for Standardization; DOT – Department of Transportation; DSL – Domestic Substances List (Canada); ECx – Concentration associated with x% response; EHS – Extremely Hazardous Substance, ELx – Loading rate associated with x% response; EmS – Emergency Schedule; ENCS – Existing and New Chemical Substances (Japan); ErCx – Concentration associated with x% growth rate response; ERG – Emergency Response Guide, GHS – Globally Harmonized System; GLP – Good Laboratory Practice; HMIS – Hazardous Materials Identification System; IARC – International Agency for Research on Cancer; IATA – International Air Transport Association; IBC – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 – Half maximal inhibitory concentration; ICAO – International Civil Aviation Organization; IECSC – Inventory of Existing Chemical Substances in China; IMDG – International Maritime Dangerous Goods; IMO – International Maritime Organization; ISHL – Industrial Safety and Health Law (Japan); ISO – International Organization for Standardization; KECI – Korea Existing Chemicals Inventory; LC50 – Lethal Concentration to 50% of a test population; LD50 – Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL – International Convention for the Prevention of Pollution from Ships; MSHA – Mine Safety and Health Administration; n.o.s – Not Otherwise Specified; NFPA – National Fire Protection Association; NO(A)EC – No Observable Effect Concentration; NO(A)EL – No Observed (Adverse) Effect Level; NOELR – No Observable Effect Loading Rate; NTP – National Toxicology Program; NZIoC – New Zealand Inventory of Chemicals; OECD – Organization for Economic Co-operation and Development; OPPTS – Office of Chemical Safety and Pollution Prevention; PBT – Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR – (Quantitative) Structure Activity Relationship; RCRA – Resource Conservation and Recovery Act; REACH – Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; PQ – Reportable Quantity; SADT – Self-Accelerating Decomposition Temperature; SARA – Superfund Amendments and Reauthorization Act; SDS – Safety Data Sheet; TCSI – Taiwan Chemical Substance Inventory; TSCA – Toxic Substances Control Act (United States); UN – United Nations; UNRTDG – United Nations Recommendations on the Transport of Dangerous Goods, vPvB – Very Persistent and Very Bioaccumulative.

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The information provided in this Material 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.

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