

# Safety Data Sheet

## Bright Copper Complexer Solution – C1217

SDS Revision Date:

05/24/2017

### 1. Identification

#### 1.1. Product identifier

**Product Identity** Bright Copper Complexer Solution – C1217  
**Alternate Names** Bright Copper Complexer Solution – C1217

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Intended use** Commercial mirroring

#### 1.3. Details of the supplier of the safety data sheet

**Company Name** Angel Gilding  
1945 Gardner Road  
Broadview IL 60155 USA

#### Emergency

**24 hour Emergency Telephone No.** 708-383-3340

**Customer Service: Angel Gilding** 708-383-3340

### 2. Hazard(s) identification

#### 2.1. Classification of the substance or mixture

No applicable GHS categories.

#### 2.2. Label elements

No applicable GHS categories.

**[Prevention]:**

No GHS prevention statements

**[Response]:**

No GHS response statements

**[Storage]:**

No GHS storage statements

**[Disposal]:**

No GHS disposal statements

# Safety Data Sheet

## Bright Copper Complexer Solution – C1217

SDS Revision Date:

05/24/2017

### 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Potassium sodium tartrate tetrahydrate CAS Number: 0006381-59-5	10 - 25	Not Classified	[1]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

\*The full texts of the phrases are shown in Section 16.

### 4. First aid measures

#### 4.1. Description of first aid measures

<b>General</b>	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
<b>Inhalation</b>	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
<b>Eyes</b>	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
<b>Skin</b>	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
<b>Ingestion</b>	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

#### 4.2. Most important symptoms and effects, both acute and delayed

<b>Overview</b>	Hazardous in case of eye contact (irritant). Slightly hazardous in case of skin contact (irritant, permeator), of ingestion. Noncorrosive for skin. Non-corrosive to the eyes. Noncorrosive for lungs. The substance is toxic to mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage.
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### 5. Fire-fighting measures

#### 5.1. Extinguishing media

As appropriate for surrounding fire.

#### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.

#### 5.3. Advice for fire-fighters

Non-explosive in presence of open flames and sparks, of shocks.

ERG Guide No. ---

# Safety Data Sheet

## Bright Copper Complexer Solution – C1217

SDS Revision Date:

05/24/2017

### 6. Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

#### 6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

#### 6.3. Methods and material for containment and cleaning up

Small Spill: Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill: Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

### 7. Handling and storage

#### 7.1. Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

Do not breathe gas/fumes/ vapor/spray. Avoid contact with eyes. Wear suitable protective clothing. If you feel unwell, seek medical attention and show the label when possible. Keep away from incompatibles such as oxidizing agents, acids.

#### 7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Keep container in a cool, well-ventilated area.

Incompatible materials: Reactive with oxidizing agents, acids.

Corrosivity: Non-corrosive in presence of glass.

#### 7.3. Specific end use(s)

No data available.

### 8. Exposure controls and personal protection

#### 8.1. Control parameters

##### Exposure

CAS No.	Ingredient	Source	Value
0006381-59-5	Potassium sodium tartrate tetrahydrate	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit

# Safety Data Sheet

## Bright Copper Complexer Solution – C1217

SDS Revision Date:

05/24/2017

	Supplier	No Established Limit
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### 8.2. Exposure controls

<b>Respiratory</b>	If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.
<b>Eyes</b>	Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.
<b>Skin</b>	Protective gloves recommended.
<b>Engineering Controls</b>	Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.
<b>Other Work Practices</b>	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

## 9. Physical and chemical properties

<b>Appearance</b>	Liquid
<b>Odor</b>	Not Available
<b>Odor threshold</b>	Not determined
<b>pH</b>	(1% soln/water): Neutral.
<b>Melting point / freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	The lowest known value is 100°C (212°F) (Water).
<b>Flash Point</b>	Not Measured
<b>Evaporation rate (Ether = 1)</b>	Not Measured
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Upper/lower flammability or explosive limits</b>	<b>Lower Explosive Limit:</b> Not Measured <b>Upper Explosive Limit:</b> Not Measured
<b>Vapor pressure (Pa)</b>	The highest known value is 2.3 kPa (@ 20°C) (Water).
<b>Vapor Density</b>	The highest known value is 0.62 (Air = 1) (Water).
<b>Specific Gravity</b>	Weighted average: 1.28 (Water = 1)
<b>Solubility in Water</b>	Easily soluble in cold water, hot water.
<b>Partition coefficient n-octanol/water (Log Kow)</b>	Not Measured
<b>Auto-ignition temperature</b>	Not Measured
<b>Decomposition temperature</b>	Not Measured
<b>Viscosity (cSt)</b>	Not Measured

### 9.2. Other information

No other relevant information.

# Safety Data Sheet

## Bright Copper Complexer Solution – C1217

SDS Revision Date:

05/24/2017

### 10. Stability and reactivity

**10.1. Reactivity**

It begins to decompose at 220 deg. C. It is incompatible with calcium or lead salts, magnesium sulfate, and silver nitrate. (Potassium sodium tartrate)

**10.2. Chemical stability**

Stable under normal circumstances.

**10.3. Possibility of hazardous reactions**

No data available.

**10.4. Conditions to avoid**

Incompatible materials.

**10.5. Incompatible materials**

Reactive with oxidizing agents, acids.  
Corrosivity: Non-corrosive in presence of glass.

**10.6. Hazardous decomposition products**

No hazardous decomposition data available.

### 11. Toxicological information

**Acute toxicity**

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Potassium sodium tartrate tetrahydrate - (6381-59-5)	No data available	No data available	No data available	No data available	No data available

**Carcinogen Data**

CAS No.	Ingredient	Source	Value
0006381-59-5	Potassium sodium tartrate tetrahydrate	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable

# Safety Data Sheet

## Bright Copper Complexer Solution – C1217

SDS Revision Date:

05/24/2017

Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

## 12. Ecological information

### 12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

### Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Potassium sodium tartrate tetrahydrate - (6381-59-5)	Not Available	Not Available	Not Available

### 12.2. Persistence and degradability

There is no data available on the preparation itself.

### 12.3. Bioaccumulative potential

Not Measured

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

### 12.6. Other adverse effects

No data available.

## 13. Disposal considerations

### 13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

## 14. Transport information

# Safety Data Sheet

## Bright Copper Complexer Solution – C1217

SDS Revision Date:

05/24/2017

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
<b>14.1. UN number</b>	Not Applicable	Not Regulated	Not Regulated
<b>14.2. UN proper shipping name</b>	Not Regulated	Not Regulated	Not Regulated
<b>14.3. Transport hazard class(es)</b>	<b>DOT Hazard Class:</b> Not Applicable	<b>IMDG:</b> Not Applicable <b>Sub Class:</b> Not Applicable	<b>Air Class:</b> Not Applicable
<b>14.4. Packing group</b>	Not Applicable	Not Applicable	Not Applicable
<b>14.5. Environmental hazards</b>			
<b>IMDG</b>	Marine Pollutant: No;		
<b>14.6. Special precautions for user</b>			
	No further information		

### 15. Regulatory information

<b>Regulatory Overview</b>	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
<b>Toxic Substance Control Act ( TSCA)</b>	All components of this material are either listed or exempt from listing on the TSCA Inventory.
<b>WHMIS 1988 Classification</b>	Not Regulated
<b>US EPA Tier II Hazards</b>	<b>Fire:</b> No <b>Sudden Release of Pressure:</b> No <b>Reactive:</b> No <b>Immediate (Acute):</b> No <b>Delayed (Chronic):</b> No

**EPCRA 302 Extremely Hazardous:**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**EPCRA 313 Toxic Chemicals:**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 - Carcinogens (>0.0%):**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 - Developmental Toxins (>0.0%):**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 - Female Repro Toxins (>0.0%):**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 - Male Repro Toxins (>0.0%):**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Safety Data Sheet**  
**Bright Copper Complexer Solution – C1217**

**SDS Revision Date:**

**05/24/2017**

<b>16. Other information</b>
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**SDS Revision Date**      05/24/2017

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