## Safety Data Sheet Gold Solution – C2097

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### 1. Identification

1.1. Product identifier

Product IdentityGold Solution – Ready-To-Use – C2097Alternate NamesGold Solution – Ready-To-Use – C2097

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

Acute Tox. 4;H302 Harmful if swallowed.
Acute Tox. 4;H332 Harmful if inhaled.

Skin Corr. 1;H314 Causes severe skin burns and eye damage.

Eye Dam. 1;H318 Causes serious eye damage.
Skin Sens. 1;H317 May cause an allergic skin reaction.

2.2. Label elements



### **Danger**

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

#### [Prevention]:

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

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P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves / eye protection / face protection.

#### [Response]:

P301+312 IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell.

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P321 Specific treatment (see information on this label).

P330 IF SWALLOWED: Rinse mouth.

P331 Do NOT induce vomiting.

P333+313 If skin irritation or a rash occurs: Get medical advice / attention.

P363 Wash contaminated clothing before reuse.

### [Storage]:

P405 Store locked up.

#### [Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

## 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
Gold chloride, trihydrate CAS Number: 0016961-25-4	5 - 10	Skin Corr. 1;H314 Skin Sens. 1;H317	[1]
Selenous acid CAS Number: 0007783-00-8	5 - 10	Acute Tox. 3;H301 Acute Tox. 3;H331 Aquatic Acute 1;H400 Aquatic Chronic 1;H410	[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.

<sup>[1]</sup> Substance classified with a health or environmental hazard.

<sup>[2]</sup> Substance with a workplace exposure limit.

<sup>[3]</sup> PBT-substance or vPvB-substance.

<sup>\*</sup>The full texts of the phrases are shown in Section 16.

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#### 4. First aid measures

#### 4.1. Description of first aid measures

**General** In all cases of doubt, or when symptoms persist, seek medical attention.

Never give anything by mouth to an unconscious person.

**Inhalation** 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.

Eyes Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and

seek medical attention.

**Skin** Remove contaminated clothing. Wash skin thoroughly with soap and water or use a

recognized skin cleanser.

**Ingestion** If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

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

Overview No specific symptom data available.

See section 2 for further details.

**Inhalation** Harmful if inhaled.

**Eyes** Causes serious eye damage.

**Skin** May cause an allergic skin reaction. Causes severe skin burns and eye damage.

**Ingestion** Harmful if swallowed.

## 5. Fire-fighting measures

#### 5.1. Extinguishing media

Use any means suitable for extinguishing surrounding fire.

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

Hazardous decomposition: May form chloride, hydrogen chloride, and metallic gold when heated to dryness and decomposition.

Avoid breathing dust / fume / gas / mist / vapors / spray.

#### 5.3. Advice for fire-fighters

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

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#### 6. Accidental release measures

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

Put on appropriate personal protective equipment (see section 8).

#### 6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

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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

Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill. Wear appropriate personal protective equipment as specified in section on spills: Pick up and place in a suitable container for reclamation or disposal.

### 7. Handling and storage

#### 7.1. Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

See section 2 for further details. - [Prevention]:

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

Keep in a tightly closed light-resistant container, stored in a cool, dry, ventilated area. Protect against physical damage.

Incompatible materials: Strong bases

See section 2 for further details. - [Storage]:

#### 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
0007783-00-8 Selenous acid	Selenous acid	OSHA	No Established Limit
	ACGIH	No Established Limit	
		NIOSH	No Established Limit
	Supplier	No Established Limit	
0016961-25-4 Gold chloride, trihydrate	OSHA	No Established Limit	
	ACGIH	No Established Limit	
		NIOSH	No Established Limit
		Supplier	No Established Limit

#### 8.2. Exposure controls

#### Respiratory

For conditions of use where exposure to mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-

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face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not

protect workers in oxygen-deficient atmospheres.

**Eyes**Use chemical safety goggles and/or full face shield where dusting or splashing of solutions

is possible. Maintain eye wash fountain and guick-drench facilities in work area.

**Skin** Wear PVC or rubber gloves to keep skin contact to a minimum. Refer to the manufacturer's

recommendations regarding the suitability of any gloves used.

**Engineering Controls** 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.

Other Work Practices Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing

apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. 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

Appearance Yellow Solution Liquid

**Odor** None

Odor threshold Not determined

pH 0.5
Melting point / freezing point 0 °C
Initial boiling point and boiling range 100 °C

Flash Point Not Measured
Evaporation rate (Ether = 1) Not Measured
Flammability (solid, gas) Not Applicable

Upper/lower flammability or explosive limits

Lower Explosive Limit: Not Measured

Upper Explosive Limit: Not Measured

Vapor pressure (Pa) Not Measured **Vapor Density** Not Measured **Specific Gravity** Not Measured Solubility in Water Complete Partition coefficient n-octanol/water (Log Kow) Not Measured **Auto-ignition temperature** Not Measured **Decomposition temperature** Not Measured Viscosity (cSt) Not Measured

9.2. Other information

Density

No other relevant information.

1 (g/cm-3)

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## 10. Stability and reactivity

#### 10.1. Reactivity

Hazardous Polymerization will not occur.

#### 10.2. Chemical stability

Stable under normal circumstances.

#### 10.3. Possibility of hazardous reactions

No data available.

#### 10.4. Conditions to avoid

Light, and incompatibles.

#### 10.5. Incompatible materials

Strong bases

#### 10.6. Hazardous decomposition products

May form chloride, hydrogen chloride, and metallic gold when heated to dryness and decomposition.

# 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
Gold chloride, trihydrate - (16961-25-4)	No data available	No data available	No data available	No data available	No data available
Selenous acid - (7783-00-8)	No data available	No data available	No data available	No data available	No data available

#### Carcinogen Data

CAS No.	Ingredient	Source	e Value		
0007783-00-8	Selenous acid	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;		
0016961-25-4	Gold chloride, trihydrate	OSHA	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;		

Classification	Category	Hazard Description
Acute toxicity (oral)	4	Harmful if swallowed.
Acute toxicity (dermal)		Not Applicable
Acute toxicity (inhalation)	4	Harmful if inhaled.

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Skin corrosion/irritation	1	Causes severe skin burns and eye damage.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization		Not Applicable
Skin sensitization	1	May cause an allergic skin reaction.
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
Gold chloride, trihydrate - (16961-25-4)	Not Available	Not Available	Not Available
Selenous acid - (7783-00-8)	2.06, Pimephales promelas	0.55, Daphnia magna	15.57 (72 hr), Pseudokirchnerella subcapitata

#### 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.

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### 14. Transport information

**DOT (Domestic Surface** IMO / IMDG (Ocean ICAO/IATA

**Transportation**) Transportation)

14.1. **UN** number Not Applicable Not Regulated Not Regulated 14.2. UN proper shipping Not Regulated Not Regulated Not Regulated

name 14.3. Transport hazard

class(es)

**DOT Hazard Class:** Not

**Applicable** 

14.4. Packing group Not Applicable **IMDG:** Not Applicable

Sub Class: Not Applicable Not Applicable

Air Class: Not Applicable

Not Applicable

14.5. Environmental hazards

**IMDG** Marine Pollutant: No:

14.6. Special precautions for user

No further information

Inventory.

D<sub>2</sub>B

## 15. Regulatory information

**Regulatory Overview** The regulatory data in Section 15 is not intended to be all-inclusive, only selected

**Toxic Substance** 

Control Act (TSCA)

**WHMIS 1988** Classification

**US EPA Tier II Hazards** 

regulations are represented.

All components of this material are either listed or exempt from listing on the TSCA

Fire: No.

Sudden Release of Pressure: No

Reactive: No Immediate (Acute): Yes Delayed (Chronic): No

**EPCRA 302 Extremely Hazardous:** 

Selenous acid

#### **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.

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#### 16. Other information

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The full text of the phrases appearing in section 3 is:

H301 Toxic if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H331 Toxic if inhaled.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

IMPORTANT NOTE: This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or any process. Final determination of suitability of any material is the sole responsibility of the user.

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