



## SAFETY DATA SHEET GOLD NON-CYANIDE

### 1. Identification

#### Product identifier

**Product name** GOLD NON-CYANIDE

**Product number** 5355

#### Recommended use of the chemical and restrictions on use

**Application** Industrial Use

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

**Supplier** SIFCO Applied Surface Concepts  
5708 E. Schaaf Road  
Independence, Ohio 44131  
U.S.A.  
Tel.: +1 216-524-0099  
Fax: +1 216-524-6331  
E-Mail: info@sifcoasc.com

#### Emergency telephone number

**Emergency telephone** CHEMTREC (United States) (800) 424-9300; CHEMTREC (International) +1 703-527-3887

### 2. Hazard(s) identification

#### Classification of the substance or mixture

**Physical hazards** Not Classified

**Health hazards** Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Resp. Sens. 1 - H334 Skin Sens. 1 - H317

**Environmental hazards** Not Classified

#### Label elements

##### Pictogram



##### Signal word

Danger

##### Hazard statements

H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

## GOLD NON-CYANIDE

<b>Precautionary statements</b>	<p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P284 [In case of inadequate ventilation] wear respiratory protection.</p> <p>P302+P352 If on skin: Wash with plenty of water.</p> <p>P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p> <p>P260 Do not breathe vapor/ spray.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P270 Do not eat, drink or smoke when using this product.</p> <p>P301+P310 If swallowed: Immediately call a poison center/ doctor.</p>
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**Contains** GOLD SODIUM THIOMALATE, ETHYLENEDIAMINE

### Other hazards

This product does not contain any substances classified as PBT or vPvB.

### 3. Composition/information on ingredients

#### Mixtures

<b>GLYCERINE</b>	<b>10-15%</b>
CAS number: 56-81-5	
<b>Classification</b>	
Not Classified	
<b>GOLD SODIUM THIOMALATE</b>	<b>5-10%</b>
CAS number: 12244-57-4	
<b>Classification</b>	
Acute Tox. 4 - H302	
Acute Tox. 4 - H332	
Skin Sens. 1 - H317	
<b>DI-SODIUM HYDROGEN CITRATE</b>	<b>1-5%</b>
CAS number: 144-33-2	
<b>Classification</b>	
Not Classified	
<b>POTASSIUM METABISULFITE</b>	<b>1-5%</b>
CAS number: 16731-55-8	
<b>Classification</b>	
Eye Dam. 1 - H318	

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<b>ETHYLENEDIAMINE</b>	<b>1-5%</b>
CAS number: 107-15-3	
<b>Classification</b>	
Flam. Liq. 3 - H226	
Acute Tox. 4 - H302	
Acute Tox. 4 - H312	
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	
Resp. Sens. 1 - H334	
Skin Sens. 1 - H317	
<b>EDTA DIPOTASSIUM SALT</b>	<b>1-5%</b>
CAS number: 2001-94-7	
<b>Classification</b>	
Not Classified	
<b>POTASSIUM DIHYDROGEN ORTHOPHOSPHATE</b>	<b>&lt;1%</b>
CAS number: 7778-77-0	
<b>Classification</b>	
Not Classified	

The full text for all hazard statements is displayed in Section 16.

#### 4. First-aid measures

##### Description of first aid measures

<b>Inhalation</b>	Move affected person to fresh air at once. Get medical attention.
<b>Ingestion</b>	Get medical attention immediately. Do not induce vomiting.
<b>Skin Contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. Continue to rinse for at least 15 minutes and get medical attention.
<b>Eye contact</b>	Remove affected person from source of contamination. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

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

<b>Inhalation</b>	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
<b>Ingestion</b>	May cause chemical burns in mouth and throat. May cause stomach pain or vomiting.
<b>Skin contact</b>	Irritating to skin. May cause an allergic skin reaction.
<b>Eye contact</b>	Causes severe burns. May cause serious eye damage.

##### Indication of immediate medical attention and special treatment needed

<b>Notes for the doctor</b>	No specific recommendations.
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#### 5. Fire-fighting measures

##### Extinguishing media

**Suitable extinguishing media** The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.

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### Special hazards arising from the substance or mixture

**Specific hazards** Corrosive gases or vapors.

### Advice for firefighters

**Protective actions during firefighting** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

**Special protective equipment for firefighters** Use protective equipment appropriate for surrounding materials.

### 6. Accidental release measures

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

**Personal precautions** Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of vapors. Provide adequate general and local exhaust ventilation.

#### Environmental precautions

**Environmental precautions** Do not discharge into drains or watercourses or onto the ground. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

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

**Methods for cleaning up** Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses. Collect and dispose of spillage as indicated in Section 13. Wash thoroughly after dealing with a spillage.

**Reference to other sections** Wear protective clothing as described in Section 8 of this safety data sheet. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

### 7. Handling and storage

#### Precautions for safe handling

**Usage precautions** Avoid spilling. Avoid contact with skin and eyes. Avoid inhalation of vapors and spray/mists. Provide adequate general and local exhaust ventilation.

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

**Storage precautions** Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from freezing and direct sunlight.

**Storage class** Corrosive storage.

#### Specific end uses(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.

### 8. Exposure Controls/personal protection

#### Control parameters

#### Occupational exposure limits

##### GLYCERINE

Long-term exposure limit (8-hour TWA): OSHA 15 mg/m<sup>3</sup> total dust

Long-term exposure limit (8-hour TWA): OSHA 5 mg/m<sup>3</sup> respirable fraction

##### ETHYLENEDIAMINE

Long-term exposure limit (8-hour TWA): OSHA 10 ppm 25 mg/m<sup>3</sup>

OSHA = Occupational Safety and Health Administration.

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### Ingredient comments

WEL = Workplace Exposure Limits

### Exposure controls

#### Protective equipment



#### Appropriate engineering controls

As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapor or mist.

#### Eye/face protection

Tight-fitting safety glasses.

#### Hand protection

It is recommended that chemical-resistant, impervious gloves are worn. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. It is recommended that gloves are made of the following material: Nitrile rubber.

#### Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

#### Hygiene measures

Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet.

#### Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

### 9. Physical and Chemical Properties

#### Information on basic physical and chemical properties

Appearance	Liquid.
Color	Yellow.
Odor	No characteristic odor.
pH	pH (concentrated solution): 8.5-8.9
Relative density	1.220-1.240 @ 20°C
Other information	Not available.

### 10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	Stable at normal ambient temperatures and when used as recommended.
Possibility of hazardous reactions	Not determined.
Conditions to avoid	Avoid excessive heat for prolonged periods of time.
Materials to avoid	Strong acids.
Hazardous decomposition products	None at ambient temperatures.

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### 11. Toxicological information

#### Information on toxicological effects

##### Acute toxicity - oral

ATE oral (mg/kg) 6,493.51

##### Acute toxicity - dermal

ATE dermal (mg/kg) 40,740.74

##### Acute toxicity - inhalation

ATE inhalation (dusts/mists  
mg/l) 30.0

**Inhalation** May cause respiratory system irritation. May cause sensitisation by inhalation.

**Ingestion** May cause chemical burns in mouth, esophagus and stomach.

**Skin Contact** Irritating to skin. May cause an allergic skin reaction.

**Eye contact** Causes serious eye damage. Immediate first aid is imperative.

**Acute and chronic health hazards** May cause burns in mucous membranes, throat, esophagus and stomach.

**Route of entry** Ingestion Inhalation Skin and/or eye contact

#### Toxicological information on ingredients.

##### GLYCERINE

##### Acute toxicity - dermal

Acute toxicity dermal (LD<sub>50</sub>  
mg/kg) 10,000.0

Species Rabbit

ATE dermal (mg/kg) 10,000.0

##### GOLD SODIUM THIOMALATE

##### Acute toxicity - oral

ATE oral (mg/kg) 500.0

##### Acute toxicity - inhalation

ATE inhalation  
(dusts/mists mg/l) 1.5

##### ETHYLENEDIAMINE

##### Acute toxicity - oral

Acute toxicity oral (LD<sub>50</sub>  
mg/kg) 1,200.0

Species Rat

ATE oral (mg/kg) 500.0

##### Acute toxicity - dermal

**GOLD NON-CYANIDE**

**Acute toxicity dermal (LD<sub>50</sub> 560.0 mg/kg)**

**Species** Rabbit

**ATE dermal (mg/kg)** 1,100.0

**Acute toxicity - inhalation**

**Acute toxicity inhalation (LC<sub>50</sub> dust/mist mg/l)** 14.7

**Species** Rat

**ATE inhalation (vapours mg/l)** 11.0

**POTASSIUM DIHYDROGEN ORTHOPHOSPHATE****Acute toxicity - dermal**

**Acute toxicity dermal (LD<sub>50</sub> 4,640.0 mg/kg)**

**Species** Rabbit

**ATE dermal (mg/kg)** 4,640.0

**12. Ecological Information**

**Ecotoxicity** Not regarded as dangerous for the environment.

**Toxicity** No data available.

**Ecological information on ingredients.****ETHYLENEDIAMINE**

**Acute toxicity - fish** , 96 hour: 115.7 mg/l, Pimephales promelas (Fat-head Minnow)

**Acute toxicity - aquatic invertebrates** , 48 hour: 3 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** , 96 hour: 151 mg/l, Pseudokirchneriella subcapitata

**Persistence and degradability**

**Persistence and degradability** No data available.

**Ecological information on ingredients.****ETHYLENEDIAMINE**

**Biodegradation** - 94: ~ 28 days

**Bioaccumulative potential**

**Bio-Accumulative Potential** The product does not contain any substances expected to be bioaccumulating.

**Mobility in soil**

**Mobility** The product is soluble in water.

**Other adverse effects**

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**Other adverse effects** Not determined.

### 13. Disposal considerations

#### Waste treatment methods

##### **General information**

Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

##### **Disposal methods**

Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

### 14. Transport information

##### **General**

The product is not covered by international regulations on the transport of dangerous goods (IMDG,IATA,DOT)

##### UN Number

Not applicable.

##### UN proper shipping name

Not applicable.

##### Transport hazard class(es)

##### **Transport labels**

No transport warning sign required.

##### Packing group

Not applicable.

##### Environmental hazards

##### **Environmentally Hazardous Substance**

No.

##### Special precautions for user

Not applicable.

**Transport in bulk according to** No information required.

**Annex II of MARPOL 73/78**

**and the IBC Code**

### 15. Regulatory information

#### US Federal Regulations

##### **SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities**

Ethylenediamine 10000 lbs

##### **CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)**

Ethylenediamine  
Final CERCLA RQ: 5000 lbs

##### **SARA Extremely Hazardous Substances EPCRA Reportable Quantities**

Ethylenediamine  
EPCRA RQ: 5000 lbs



## GOLD NON-CYANIDE

### SARA 313 Emission Reporting

Exempt.

### CAA Accidental Release Prevention

HAP  
Ethylenediamine

### SARA (311/312) Hazard Categories

Acute  
Chronic

### OSHA Highly Hazardous Chemicals

Exempt.

### US State Regulations

#### California Proposition 65 Carcinogens and Reproductive Toxins

Exempt.

#### California Directors List of Hazardous Substances

Ethylenediamine

### Inventories

#### US - TSCA

All ingredients are present.

### 16. Other information

<b>Classification abbreviations and acronyms</b>	<p>Acute Tox. = Acute toxicity  Carc. = Carcinogenicity  Eye Dam. = Serious eye damage  Eye Irrit. = Eye irritation  Flam. Liq. = Flammable liquid  Muta. = Germ cell mutagenicity  Resp. Sens. = Respiratory sensitisation  Skin Corr. = Skin corrosion  Skin Irrit. = Skin irritation  Skin Sens. = Skin sensitisation  STOT RE = Specific target organ toxicity-repeated exposure  STOT SE = Specific target organ toxicity-single exposure</p>
<b>Revision date</b>	11/27/2017
<b>Revision</b>	3
<b>Hazard statements in full</b>	<p>H226 Flammable liquid and vapor.  H302 Harmful if swallowed.  H312 Harmful in contact with skin.  H314 Causes severe skin burns and eye damage.  H315 Causes skin irritation.  H317 May cause an allergic skin reaction.  H318 Causes serious eye damage.  H332 Harmful if inhaled.  H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.</p>
<b>NFPA - instability hazard</b>	Normally stable. (0)
<b>NFPA - health hazard</b>	Temporary incapacitation, injury. (2)
<b>NFPA - flammability hazard</b>	Will not burn. (0)

## GOLD NON-CYANIDE

The Information in this data sheet is believed to be correct but neither we nor our employees or agents give any warranty or make any representation to the accuracy thereof and accept no liability for any loss, injury or damage which may result in it's use. The sole purpose of this data sheet is to provide guidance on the safe handling and use of the products to which it relates. It does not form part of any product specification nor part of any contract. It is not practical for the guidance and information in this data sheet to cover every conceivable application of a product and as we may not be aware of the use to which the products covered by this data sheet are to be put it remains the responsibility of the user to conduct it's own tests and to satisfy itself as to the suitability of the product.