

Safety Data Sheet

performance through chemistry

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 02/17/2015 Revision date: 10/03/2017

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Version: 1.1

**SECTION 1: Identification** Identification 1.1. Product form : Mixtures Product name : Gold AA Standard, 1000ppm (1mL = 1mg Au) Product code I C14890 Recommended use and restrictions on use 1.2. Use of the substance/mixture : For laboratory and manufacturing use only. Recommended use : Laboratory chemicals Restrictions on use : Not for food, drug or household use 1.3. Supplier LabChem Inc Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court Zelienople, PA 16063 - USA T 412-826-5230 - F 724-473-0647 info@labchem.com - www.labchem.com 1.4. **Emergency telephone number** Emergency number : CHEMTREC: 1-800-424-9300 or 011-703-527-3887 SECTION 2: Hazard(s) identification Classification of the substance or mixture 2.1. **GHS-US classification** Skin corrosion/irritation H314 Causes severe skin burns and eye damage Category 1B Serious eye damage/eye H318 Causes serious eye damage irritation Category 1 Full text of H statements : see section 16 2.2. GHS Label elements, including precautionary statements **GHS-US** labeling Hazard pictograms (GHS-US) GHS05 Signal word (GHS-US) : Danger Hazard statements (GHS-US) : H314 - Causes severe skin burns and eye damage Precautionary statements (GHS-US) P260 - Do not breathe mist P264 - Wash exposed skin thoroughly after handling P280 - Wear protective gloves, protective clothing, eye protection, face protection P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P310 - Immediately call a poison center or doctor/physician P363 - Wash contaminated clothing before reuse P405 - Store locked up P501 - Dispose of contents/container to comply with local, state and federal regulations If inhaled: Remove person to fresh air and keep comfortable for breathing Other hazards which do not result in classification 2.3.

Other ha	azards not contributing to the ation	: None under normal conditions.
2.4.	Unknown acute toxicity (GHS US)	
Not app	licable	

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### **SECTION 3: Composition/Information on ingredients**

### 3.1. Substances

## Not applicable

Name	Product identifier	%	GHS-US classification
Water	(CAS-No.) 7732-18-5	89.82	Not classified
Hydrochloric Acid, 37% w/w	(CAS-No.) 7647-01-0	9.98	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 3, H402
Gold Chloride, Trihydrate	(CAS-No.) 16961-25-4	0.2	Skin Corr. 1C, H314 Eye Dam. 1, H318

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures	
4.1. Description of first aid measures	
First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a poison center or doctor/physician.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.
4.2. Most important symptoms and effect	s (acute and delayed)
Symptoms/effects	: Causes severe skin burns and eye damage.
Symptoms/effects after skin contact	: Burns.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: Burns. Nausea. Vomiting.
4.3. Immediate medical attention and spe	cial treatment, if necessary
Hospitalize at once. Doctor: gastric lavage is not r	recommended.
SECTION 5: Fire-fighting measures	
5.1. Suitable (and unsuitable) extinguishi	ng media
Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.
5.2. Specific hazards arising from the che	emical
Reactivity	: Thermal decomposition generates : Corrosive vapors.
5.3. Special protective equipment and pro	ecautions for fire-fighters

 Firefighting instructions
 : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

 Protection during firefighting
 : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTIO	ON 6: Accidental release mea	sures
6.1.	Personal precautions, protective ec	uipment and emergency procedures
6.1.1.	For non-emergency personnel	
Protective	equipment	: Protective goggles. Protective clothing. Gloves. Face-shield.
Emergen	cy procedures	: Evacuate unnecessary personnel.
6.1.2.	For emergency responders	
Protective	equipment	: Equip cleanup crew with proper protection.
Emergen	cy procedures	: Ventilate area.
6.2.	Environmental precautions	

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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6.3. Methods and material for c	containment and cleaning up
Methods for cleaning up	: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
6.4. Reference to other section	S
See Heading 8. Exposure controls and	personal protection.
SECTION 7: Handling and sto	orage
7.1. Precautions for safe handl	ing
Precautions for safe handling	Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not breathe mist.
Hygiene measures	: Wash exposed skin thoroughly after handling. Wash contaminated clothing before reuse.
7.2. Conditions for safe storage	e, including any incompatibilities
Technical measures	: Comply with applicable regulations.
Storage conditions	: Light sensitive. Keep container closed when not in use.
Incompatible products	: Strong bases.
Incompatible materials	: Sources of ignition. Direct sunlight.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

#### Gold Chloride, Trihydrate (16961-25-4)

Not applicable			
Hydrochloric Acid,	37% w/w (7647-01-0)		
ACGIH	ACGIH Ceiling (mg/m <sup>3</sup> )	2.98 mg/m <sup>3</sup>	
ACGIH	ACGIH Ceiling (ppm)	2 ppm	
OSHA	OSHA PEL (Ceiling) (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>	
OSHA	OSHA PEL (Ceiling) (ppm)	5 ppm	
IDLH	US IDLH (ppm)	50 ppm	
NIOSH	NIOSH REL (ceiling) (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>	
NIOSH	NIOSH REL (ceiling) (ppm)	5 ppm	
Water (7732-18-5)			
Not applicable			

#### 8.2. Appropriate engineering controls

Appropriate engineering controls

: Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

#### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Chemical resistant apron. Face shield. Gloves. Safety glasses.



Hand protection:

Wear protective gloves

Eye protection:

Chemical goggles or face shield

Skin and body protection:

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Wear suitable protective clothing

#### **Respiratory protection:**

Wear appropriate mask

#### Other information:

Do not eat, drink or smoke during use.

#### SECTION 9: Physical and chemical properties Information on basic physical and chemical properties 9.1. Physical state : Liquid Color : Yellow Odor : None. Odor threshold : No data available pН · <1 : No data available Melting point Freezing point : No data available Boiling point : No data available Flash point No data available Relative evaporation rate (butyl acetate=1) : No data available Flammability (solid, gas) : Non flammable. Vapor pressure : No data available Relative vapor density at 20 °C : No data available Relative density : No data available Solubility : No data available Log Pow : No data available Auto-ignition temperature : No data available Decomposition temperature : No data available Viscosity, kinematic No data available Viscosity, dynamic : No data available Explosion limits : No data available : No data available Explosive properties Oxidizing properties : No data available 9.2. **Other information** No additional information available SECTION 10: Stability and reactivity Reactivity 10.1. Thermal decomposition generates : Corrosive vapors. 10.2. **Chemical stability** Stable under normal conditions. 10.3. Possibility of hazardous reactions Not established. 10.4. **Conditions to avoid** Direct sunlight. Extremely high or low temperatures. 10.5. Incompatible materials Strong bases. 10.6. Hazardous decomposition products Hydrogen chloride. **SECTION 11: Toxicological information** Information on toxicological effects 11.1.

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Likely routes of exposure	: Skin and eye contact
Acute toxicity	: Not classified
Hydrochloric Acid, 37% w/w (7647-01-0)	
LD50 oral rat	700 mg/kg
LD50 dermal rabbit	5010 mg/kg
ATE US (oral)	700 mg/kg body weight
ATE US (dermal)	5010 mg/kg body weight
Water (7732-18-5)	
LD50 oral rat	≥ 90000 mg/kg
ATE US (oral)	90000 mg/kg body weight
Skin corrosion/irritation	: Causes severe skin burns and eye damage.
	pH: ≤ 1
Serious eye damage/irritation	: Causes serious eye damage.
	pH: ≤ 1
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Hydrochloric Acid, 37% w/w (7647-01-0)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Not classified
Specific target organ toxicity - single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/effects after skin contact	: Burns.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: Burns. Nausea. Vomiting.
	<u> </u>

### **SECTION 12: Ecological information**

12.1. Toxicity

Hydrochloric Acid, 37% w/w (7647-01-0)	
LC50 fish 1	282 mg/l (LC50; 96 h)
EC50 Daphnia 1	< 56 mg/l (EC50; 72 h)

12.2. Persistence and degradability	
Gold AA Standard, 1000ppm (1mL = 1mg Au)	
Persistence and degradability	Not established.
Gold Chloride, Trihydrate (16961-25-4)	
Persistence and degradability	Not established.
Hydrochloric Acid, 37% w/w (7647-01-0)	
Persistence and degradability	Biodegradability: not applicable. No test data on mobility of the components available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
Water (7732-18-5)	
Persistence and degradability	Not established.

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12.3. Bioaccumulative potential	
Gold AA Standard, 1000ppm (1mL = 1mg A	u)
Bioaccumulative potential	Not established.
Gold Chloride, Trihydrate (16961-25-4)	
Bioaccumulative potential	Not established.
Hydrochloric Acid, 37% w/w (7647-01-0)	
Log Pow	0.25 (QSAR)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Water (7732-18-5)	
Bioaccumulative potential	Not established.
12.4. Mobility in soil	
Hydrochloric Acid, 37% w/w (7647-01-0)	
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.
12.5. Other adverse effects	
Effect on the global warming	: No known effects from this product.
GWPmix comment	: No known effects from this product.
Other information	: Avoid release to the environment.
SECTION 13: Disposal consideratio	ns
13.1. Disposal methods	
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with local, state and federal regulations.
Ecology - waste materials	: Avoid release to the environment.
SECTION 14: Transport information	
Department of Transportation (DOT)	
In accordance with DOT	
Transport document description	: UN3264 Corrosive liquid, acidic, inorganic, n.o.s., 8, II
UN-No.(DOT)	: UN3264
Proper Shipping Name (DOT)	: Corrosive liquid, acidic, inorganic, n.o.s.
Transport hazard class(es) (DOT)	: 8 - Class 8 - Corrosive material 49 CFR 173.136
Packing group (DOT)	: II - Medium Danger
Hazard labels (DOT)	: 8 - Corrosive
	CORROSIVE
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 202
DOT Packaging Bulk (49 CFR 173.xxx)	: 242
DOT Symbols	: G - Identifies PSN requiring a technical name

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DOT Special Provisions (49 CFR 172.102)	:	B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks are not authorized. IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. T11 - 6 178.274(d)(2) Normal
DOT Packaging Exceptions (49 CFR 173.xxx)	:	154
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	1L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	30 L
DOT Vessel Stowage Location	:	B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
DOT Vessel Stowage Other	:	40 - Stow "clear of living quarters"
Other information	:	No supplementary information available.

E 1. US Endored regulations			
5.1. US Federal regulations			
Gold AA Standard, 1000ppm (1mL = 1mg Au)			
SARA Section 311/312 Hazard Classes		Immediate (acute) health h	azard
All components of this product are listed, or exclusion Substances Control Act (TSCA) inventory exception		on the United States Environr	nental Protection Agency Toxic
Gold Chloride, Trihydrate		CAS-No. 16961-25-4	0.2%
	s of Section 313 or	r Title III of the Superfund An	endments and Reauthorization Act (SARA) of
Chemical(s) subject to the reporting requirement 1986 and 40 CFR Part 372. Hydrochloric Acid, 37% w/w	s of Section 313 or	r Title III of the Superfund An CAS-No. 7647-01-0	endments and Reauthorization Act (SARA) of 9.98%
1986 and 40 CFR Part 372.	s of Section 313 or		
1986 and 40 CFR Part 372. Hydrochloric Acid, 37% w/w			
1986 and 40 CFR Part 372. Hydrochloric Acid, 37% w/w Gold Chloride, Trihydrate (16961-25-4) SARA Section 311/312 Hazard Classes		CAS-No. 7647-01-0	
1986 and 40 CFR Part 372. Hydrochloric Acid, 37% w/w Gold Chloride, Trihydrate (16961-25-4)	Immediate (acut	CAS-No. 7647-01-0 te) health hazard	

SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

5.2. International regulations
CANADA
Gold Chloride, Trihydrate (16961-25-4)
Not listed on the Canadian DSL (Domestic Substances List)

No additional information available	
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#### National regulations

Gold Chloride, Trihydrate (16961-25-4)
Not listed on the Canadian IDL (Ingredient Disclosure List)

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

	r information
Revision date	: 10/03/2017
Other information	: None.
Full text of H-phrases: se	
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H335	May cause respiratory irritation
H402	Harmful to aquatic life
NFPA health hazard	: 3 - Materials that, under emergency conditions, can cause serious or permanent injury.
NFPA fire hazard	: 0 - Materials that will not burn under typical dire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.
NFPA reactivity	: 0 - Material that in themselves are normally stable, even under fire conditions.
Hazard Rating	
Health	: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given
Flammability	: 0 Minimal Hazard - Materials that will not burn
Physical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
Personal protection	: D
	D - Face shield and eye protection, Gloves, Synthetic apron

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