

1. Product Identification

Product Identifier Gold Investment Remover
 Other means of identification
 SDS Number 10000023
 Synonyms Chlorohydric acid, hydrogen chloride, marlactic acid
 Recommended Use Acid, steel, oil & gas, ore & mineral, food processing, pharmaceutical, organic chemical synthesis
 Recommended restrictions None Known.
 Company Information
 Address Romanoff International Supply Corp.
 9 Deforest Street Amityville, NY 11701
 Phone: 631-842-2400
 Emergency Contact: CHEMTEL ACCOUNT: #MIS4594445

USA, CANADA, PUERTO RICO & US VIRGIN ISLANDS: 1-800-255-3924
AUSTRALIA: 1-300-954-583 **BRAZIL:** 0-800-591-6042 **CHINA:** 400-120-0751
INDIA: 000-800-100-4086 **MEXICO:** 800-099-0731 **ALL OTHER COUNTRIES:** 1-813-248-0585

2. Hazards identification

Physical hazards Corrosive to metals Category 1
 Health hazards Acute toxicity, oral Category 4
 Skin corrosive irritation Category 1
 Serious eye damage/eye irritation Category 1
 Specific target organ toxicity, single exposure Category 3 respiratory tract infection

OSHA Elements Not classified.

Label Elements



Signal Word Danger

Label elements May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage. May cause respiratory irritation

Precautionary Statement Wear protective gloves/protective clothing/eye protection/face protection.
 Do not eat, drink or smoke when using this product.

Prevention Do not breathe mist or vapor. Use only outdoors or in a well-ventilated area.
 Wash thoroughly after handling. Keep in original container

Response If swallowed: Rinse mouth. Do NOT induce vomiting. If inhaled: Remove person to fresh air and keep comfortable for breathing. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses. If present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.

Storage Store in a well-ventilated place. Keep container tightly closed. Store locked-up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise Classified (HNOC) None known.

Supplemental information Not applicable.

3. Composition/Information on ingredients

Mixtures

Chemical name	CAS number	%
Ammonium Bifluoride	1241-49-7	6-8
Hydrochloric acid	7647-01-0	8-20

4. First- aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician or poison control center immediately
Skin contact	Take off immediately all contaminated clothing. Wash off IMMEDIATELY with plenty of water for at least 15-20 minutes. Get medical attention IMMEDIATELY. Call a physician or poison control center immediately.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do/ Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important Symptoms/effects, acute and delayed	Contact with this material will cause burns to the skin, eyes and mucous membranes.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the materials(s) involved and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Dry chemical. Foam. Carbon dioxide (CO2).
Unstable extinguishing media	Water. Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Immediately evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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Methods and materials for containment and cleaning up

Should not be released into the environment.
Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermioulite, dry sand or earth and place into containers. Deactivation materials include lime, limestone, sodium carbonate (soda ash), sodium bicarbonate, and dilute sodium hydroxide. Present entry into waterways, sewer, basements or confined areas.
Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
Never return spills in original containers for re-use. For waste disposal, see Section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Wear appropriate personal protective equipment. Do not get in eyes, on skin, on clothing. Do not breathe mist or vapor. Observe good industrial hygiene practices. Do not empty into drains. Use caution when combining with water; DO NOT add water to acid. ALWAYS add acid to water while stirring to prevent release of heat, steam and fumes.

Environmental precautions

Store in a well-ventilated place. Store away from incompatible materials. Store in containers specially designed for this product and strength. Keep away from heat, sparks and open flames

8. Exposure controls/personal protection

Occupational exposure limits

US, OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Hydrochloric acid (CAS 7647-01-0)	Ceiling	7 mg/m3 5 ppm

US, ACGH Threshold Limit Values

Components	Type	Value
Hydrochloric acid (CAS 7647-01-0)	Ceiling	2 ppm

U8, NIOSH: pocket Guide to Chemical Hazards

Components	Type	Value
Hydrochloric acid (CAS 7647-01-0)	Ceiling	7 mg/m3 5 ppm

Biological limit values

No biological exposure limits noted for the ingredient(s)

Appropriate engineering controls

Good general ventilation (typical 10 air changes per hour) should be used. Ventilation values should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shield (or goggles). Face-shield. Wear a full-face respirator, if need.

Skin protection	Chemical resistant gloves.
Hand protection	Wear appropriate chemical resistant clothing.
Other	
Respiratory protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
Thermal hazards	Wear appropriate thermal protective clothing when necessary
General hygiene considerations	Do not get this material on clothing. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	
Physical state	Liquid
Form	Liquid
Color	Clear. Colorless.
Odor	Pungent
Odor threshold	Not available
pH	<1 (at 25°C)
Melting point/freezing point	For product range of concentrations: -71°F (-57.22°C) to -17°F (-27°C)
Initial boiling point and boiling range	For product range of concentrations: 226°F (107.78°C) to 127°F (53°C)
Flash Point	Not applicable
Evaporation rate	1 (Approximately, water = 1)
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	For product range of concentrations: 0.01 mmHg to 200 mmHg @68°F (20°C)
Vapor density	Approximate
Relative density	For product range of concentrations; 1.102 g/cm ³ to 1.188 g/
Solubility(ies)	
Solubility(water)	Completely soluble
Partition coefficient (n-octano/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Bulk density	Not available.
Molecular weight	36.46 g/mol

10. Stability and Reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport
Chemical stability	Material is stable under normal conditions.
Possibility of hazerdos reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with metal may release flammable hydrogen gas. Contact with imcompatible materials. Do not mix with other chemicals.
Incompatible materials	Incompatible with bases. Amines. Acid anhydridas. Metals. Organic compounds.
Hazard decomposition products	Hydrogen chloride

11. Toxicological Information

Information on likely routes of exposure	
Inhalation	Vapors and mist will irritate throat and respiratory system and cause coughing.
Skin contact	Causes skin burns.
Eye contact	Causes eye burns.
Ingestion	Harmful if swallowed. Causes digestive tract burns. Ingestion may produce burns to the lips, oral cavity, upper airway, espphagus and possibly the digestive tract.
Symptoms related to the physical, chemical and toxicological characteristics	Contact with this material will cause burns to the skin, eyes and mucuous membranes. Permanent eye damage including blindness could result.
Information on toxilological effects	
Acute toxicity	Harmful if swallowed.

Components	Species	Test Results
Hydrochloric acid (CAS 7647-01-0)		
Acute LC50	Rat	3124 mg/, 1 Hours
Acute LC50	Rabbit	900 mg/kg
Skin crrosion/irritation		Causes severe skin burns and eye damage.
Serious eye damage/eye irritation		Causes serious eye damage.
Respiratory or skin sensitization		
Respiratory sensitization		This product is not expected to cause respiratory sensitization.
skin sensitization		This product is not expected to cause skin sensitization.
Germ cell mutagenicity		No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity		This product is not considered to be a carcinogen by IARG, ACGIH, NTP or OSHA.
IARC Monographs. Overall Evaluation of Carcinogenicity		
Hydrochloroic acid (CAS 7647-01-0)		3 Not classifiable as to carcinogenicity to humans.
NTP Report on Carcinogens		
Not listed		

OSHA Specifically Regulated Substances (29 CFR 1910.10001-1050)

Not listed

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity . Single exposure	May cause respiratory irritation.
Specific target organ toxicity . Repeated exposure	Not classified.
Aspiration hazard	Not classified.
Chronic effects	Prolonged inhalations may be harmful.

12. Ecological information

Information on likely routes of exposure
Ecotoxicity

Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Components

Species

Test Results

Hydrochloric acid (CAS 7647-01-0)

Aquatic

Fish	LC50	Western mosquitofish (Gambusia affinis)
Persistence and degradability		No data is available on the degradability of this product.
Bioaccumulative potential		No data available.
Mobility in soil		No data available.
Other adverse effects		No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers. water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national. international regulations.
Local disposal regulations	Dispose in accordance with all regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions)
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after containers are emptied.

14. Transport information

DOT

UN Number	UN 1760
UN proper shipping name	Corrosive acid liquids, N.O.S

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)
Australia	Australian of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA Inventory)	Yes

“A “Yes” indicates the product complies with the Inventory requirements administered by the governing country(s).
A “No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, Including date of preparation of last revision

International Inventories

Issue date	25-September-2014
Revision date	05-August-2015
Version #	02
HMIS® ratings	Health: 3 Flammability: 0 Physical hazard: 0

List of abbreviations

LD50: Lethal Dose, 50%
EC50: Effective concentration, 50%
TWA: Time weighted average.

References

EPA: AQUIRE database
HSDB® - Hazardous Substances Data Bank
US. IARC Monographs on Occupational Exposures to Chemical Agents
IARC Monographs. Overall Evaluation of Carcinogenicity
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

Disclaimer

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.