

SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Name: Gold(III) Chloride Hydrate

CAS #: 27988-77-8

Relevant identified uses of the substance: Scientific research and development

Supplier details:

Stanford Advanced Materials

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SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Classification : C; R34

R43

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Skin corrosion - Category 1B - Danger (CLP : Skin Corr. 1B) H314

Skin sensitisation - Category 1 - Warning (CLP : Skin Sens. 1) H317

2.2. Label elements

Labelling EC 67/548 or EC 1999/45

Symbol(s) êC

Symbol(s) : C : Corrosive

R Phrase(s) : R34 : Causes burns.

R43 : May cause sensitization by skin contact.

S Phrase(s) : S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 : Wear suitable protective clothing, gloves and eye/face protection.S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).

Labelling Regulation EC 1272/2008 (CLP)

Hazard pictograms M» MÄ

Signal words : Danger

Hazard statements : H314 : Causes severe skin burns and eye damage.

H317 : May cause an allergic skin reaction.

Precautionary statements

- Prevention : P280: Wear protective gloves, protective clothing, eye protection, face protection.

P260: Do not breathe dust, fume, gas, mist, Vapors, spray.

P264: Wash thoroughly after handling.

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

- Response : P302+P352: IF ON SKIN : Wash with plenty of soap and water.

P301+P330+P331: IF SWALLOWED : Rinse mouth. Do NOT induce vomiting.

P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.

P303+P361+P353: IF ON SKIN (or hair) : Remove immediately all contaminated clothing. Rinse skin with water/shower.

P333+P313: If skin irritation or rash occurs : Get medical advice.

P363: Wash contaminated clothing before reuse.

- Storage : P405: Store locked up.

- Disposal considerations ; P501: Dispose of this material and its container to hazardous or special

waste

collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Other hazards : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Preparation : CHLOROauric ACID

CAS No :16903-35-8

Substance.

Contains no other components or impurities which will influence the classification of the product.

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing.

Immediately call a POISON CENTER or doctor.

Skin contact : If skin irritation or rash occurs : Wash contaminated clothing before reuse.

Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Specific treatment (see on this label). Get medical advice. Immediately call a POISON CENTER or doctor.

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.

Ingestion : Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.

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

Symptoms relating to use : Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

4.3. Indication of any immediate medical attention and special treatment needed

General information : Never give anything by mouth to an unconscious person. If you feel unwell, seek

medical advice (show the label where possible).

SECTION 5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

Surrounding fires : Use water spray or fog for cooling exposed containers.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products : Under fire conditions, hazardous fumes will be present.

Thermal decomposition generates : Corrosive Vapors.

5.3. Advice for fire-fighters

Protection against fire : Do not enter fire area without proper protective equipment, including respiratory

protection.

Special procedures : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water

to

enter environment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

For emergency responders : Equip cleanup crew with proper protection.

Ventilate area.

For non-emergency personnel : Evacuate unnecessary personnel.

6.2. Environmental precautions

Environmental precautions : Prevent entry to sewers and public waters. Notify authorities if product

enters

sewers or public waters.

6.3. Methods and material for containment and cleaning up

Clean up methods : On land, sweep or shovel into suitable containers. Minimize generation of dust.

Store away from other materials.

6.4. Reference to other sections

See section 8. Exposure controls/personal protection

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Handling : Wash thoroughly after handling. Wash contaminated clothing before reuse. Do not breathe dust, fume, gas, mist, Vapors, spray. Contaminated work clothing should not be allowed out of the workplace.

Technical protective measures : Provide good ventilation in process area to prevent formation of Vapor.

7.2. Conditions for safe storage, including any incompatibilities : Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.

Storage regulation : Comply with applicable regulations.

Storage - away from : Strong bases. Strong acids. Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

Specific end use(s) : None.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure controls

Personal protection : Avoid all unnecessary exposure.

- Respiratory protection : Wear approved mask.
- Hand protection : Wear protective gloves.

- Skin protection : Wear suitable protective clothing.
- Eye protection : Chemical goggles or face shield.
- Others : When using, do not eat, drink or smoke.

8.2. Control parameters

Occupational Exposure Limits : No data available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state at 20 °C : Solid.

Colour : Yellow crystalline

Odor : N/A

Odor threshold : No data available.

pH value : N/A

Melting point [°C] : No data available.

Decomposition point [°C] : N/A

Critical temperature [°C] : N/A

Auto-ignition temperature [°C] : N/A

Flammability (solid, gas) : N/A

Flash point [°C] : N/A

Boiling point [°C] : N/A

Initial boiling point [°C] : N/A

Final boiling point [°C] : N/A

Evaporation rate : N/A

Vapor pressure [20°C] : N/A

Vapor pressure mm/Hg : N/A

Vapor density : N/A

Density [g/cm³] : 3,9

Relative density, gas (air=1) : N/A

Relative density, liquid (water=1) : N/A

Solubility in water [% weight] : N/A

Solubility in water : N/A

Log Pow octanol / water at 20°C : No data available.

Solubility : N/A

Viscosity at 40°C [mm²/s] : N/A

9.2. Other information

Explosive properties : N/A

Explosion limits - upper [%] : N/A

Explosion limits - lower [%] : N/A Oxidising properties : No data available

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity : Not established.

10.2. Chemical stability

Chemical stability : Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : Not established.

10.4. Conditions to avoid

Conditions to avoid : Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Materials to avoid : Strong acids. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.

Thermal decomposition generates : Corrosive Vapors.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

- Inhalation : Based on available data, the classification criteria are not met.
- Dermal : Based on available data, the classification criteria are not met.
- Ingestion : Based on available data, the classification criteria are not met.

Corrosion : Causes severe skin burns and eye damage.

Irritation : Based on available data, the classification criteria are not met.

Sensitization : May cause an allergic skin reaction.

Mutagenicity : Based on available data, the classification criteria are not met.

Carcinogenicity : Based on available data, the classification criteria are not met.

Toxic for reproduction : Based on available data, the classification criteria are not met.

STOT-single exposure : Based on available data, the classification criteria are not met.

STOT-repeated exposure : Based on available data, the classification criteria are not met.

Aspiration hazard : Based on available data, the classification criteria are not met.

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

Toxicity information : Not established.

12.2. Persistence - degradability

Persistence - degradability : Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential : Not established.

12.4. Mobility in soil

Mobility in soil : Not established.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6. Other adverse effectsEnvironmental precautions : Avoid release to the environment.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

General : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.

Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

SECTION 14. TRANSPORT INFORMATION

14.1. Land transport (ADR-RID)

Proper shipping name : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

UN N° : 3260

H.I. nr : 80

ADR - Class : 8

Labelling - Transport : 8 : Corrosive substance.

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ADR - Classification code : C2

ADR - Group : III

ADR - Packing instructions : P002 R001 LP002

ADR - Limited Quantity : 5 KG

ADR - Tunnel code : E : Passage forbidden through tunnels of category E.

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14.2. Sea transport (IMDG) [English only]

Proper shipping name : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

UN N° : 3260

IMO-IMDG - Class or division : 8 : Corrosive substance.

IMO-IMDG - Packing group : III

IMO-IMDG - Packing instructions : P002 LP02

IMO-IMDG - Limited quantities : 5 kg

IMO-IMDG - Marine pollution : No

EMS-Nr : F-A S-B

14.3. Air transport (ICAO-IATA) [English only]

Proper shipping name : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

UN N° : 3260

IATA - Class or division : 8 : Corrosive substance.

IATA - Packing group : III

IATA - Passenger and Cargo Aircraft : ALLOWED

- Passenger and Cargo - Packing : 860

instruction

- Passenger and Cargo - Maximum : 25 kg

Quantity/Packing

IATA - Cargo only : ALLOWED

- Cargo only - Packing instruction : 864

- Cargo only - Maximum Quantity/ : 100 kg

Packing

IATA - Limited Quantities : 5 kg

ERG-Nr : 8L

SECTION 15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Safety, health and environmental : Ensure all national/local regulations are observed.

regulations/legislation specific for the

substance or mixture

REACH Restrictions - Annex XVII : The components of this product are not subject to restrictions.

REACH Authorisation - Annex XIV : The components of this product are not subject to authorization.

15.2. Chemical Safety Assessment

Chemical Safety Assessment : It has not been carried out.

SECTION 16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.