

1-Mercapto-(triethylene Glycol) Methyl Ether Functionalized Gold Nanoparticles Solution	Pricing >
Gold (By Crystallization)	Pricing >
Gold Balls	Pricing >
Gold Band	Pricing >
Gold Bars	Pricing >
Gold Beads	Pricing >
Gold Blocks	Pricing >
Gold Chunk	Pricing >
Gold Coil	Pricing >
Gold Colloid	Pricing >
Gold Colloid Solution	Pricing >
Gold Concentrate	Pricing >
Gold Conductor Paste	Pricing >
Gold Crucibles	Pricing >
Gold Cubes	Pricing >
Gold Cylinder	Pricing >
Gold Disc	Pricing >
Gold Flake	Pricing >
Gold Flange	Pricing >
Gold Foam	Pricing >
Gold Foil	Pricing >
Gold Gauze	Pricing >
Gold Granules	Pricing >
Gold Honeycomb	Pricing >
Gold Ingot	Pricing >
Gold Ink	Pricing >
Gold Insulated Wire	Pricing >
Gold Lump	Pricing >
Gold Marker Bands	Pricing >

Gold Mesh	Pricing >
Gold Metal	Pricing >
Gold Microfoil	Pricing >
Gold Microleaf	Pricing >
Gold Microrods	Pricing >
Gold Nanocubes	Pricing >
Gold Nanoparticle Dispersion	Pricing >
Gold Nanoparticles	Pricing >
Gold Nanoparticles on Carbon Black	Pricing >
Gold Nanoparticles on Titania	Pricing >
Gold Nanoparticles, Biotin Terminated	Pricing >
Gold Nanoparticles, Carboxylic Acid Functionalized	Pricing >
Gold Nanoparticles, Methyl Terminated	Pricing >
Gold Nanoprisms	Pricing >
Gold Nanorods	Pricing >
Gold Nanorods, Amine Terminated	Pricing >
Gold Nanorods, Carboxyl Terminated	Pricing >
Gold Nanorods, Methyl Terminated	Pricing >
Gold Nanorods, Palladium-coated	Pricing >
Gold Nanorods, Platinum-coated	Pricing >
Gold Nanostars	Pricing >
Gold Nanotubes	Pricing >
Gold Nanourchins	Pricing >
Gold Nanowire Dispersion	Pricing >
Gold Nanowires	Pricing >
Gold Particles	Pricing >
Gold Parts	Pricing >
Gold Pellets	Pricing >
Gold Pieces	Pricing >
Gold Plate	Pricing >
Gold Powder	Pricing >
Gold Puck	Pricing >

Gold Ribbon	Pricing >
Gold Ring	Pricing >
Gold Rod	Pricing >
Gold Rotatable Sputtering Target	Pricing >
Gold Samples	Pricing >
Gold Shavings	Pricing >
Gold Sheet	Pricing >
Gold Shot	Pricing >
Gold Single Crystal	Pricing >
Gold Sleeve	Pricing >
Gold Slugs	Pricing >
Gold Specimen	Pricing >
Gold Spheres	Pricing >
Gold Sponge	Pricing >
Gold Spring	Pricing >
Gold Sputtering Target	Pricing >
Gold Strip	Pricing >
Gold Tape	Pricing >
Gold Tube	Pricing >
Gold Wafer	Pricing >
Gold Wire	Pricing >
Gold Wool	Pricing >

Linear Formula	Au
Pubchem CID	23985
MDL Number	MFCD00003436
EC No.	231-165-9
Beilstein/Reaxys No.	N/A
SMILES	[Au]
Inchi Identifier	InChI=1S/Au
Inchi Key	PCHJSUWPFVWCPO-UHFFFAOYSA-N
Signal Word	Danger
Hazard Statements	H228
Hazard Codes	N/A

Precautionary Statements	P210-P240-P241-P280-P370 + P378
Flash Point	Not applicable
Risk Codes	11
Safety Statements	7/9-16-33
RTECS Number	TP2160000
Transport Information	UN 3089 4.1 / PGII
WGK Germany	nwg
GHS Pictograms	<u>GHS02 Flame</u> 

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SAFETY DATA SHEET

Date Accessed: 04/24/2024

Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #7440-57-5

Relevant identified uses of the substance:
Scientific research and development

Supplier details:
American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
Fax: +1 310-208-0351

Emergency telephone number:
Domestic, North America +1 800-424-9300
International +1 703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008

The substance is not classified as hazardous to health or the environment according to the CLP regulation.

Classification according to Directive 67/548/EEC or
Directive 1999/45/EC
N/A
Information concerning particular hazards for human
and environment:
No data available
Hazards not otherwise classified
No data available
Label elements
Labelling according to Regulation (EC) No 1272/2008
N/A
Hazard pictograms
N/A
Signal word
N/A
Hazard statements
N/A
WHMIS classification
Not controlled
Classification system
HMIS ratings (scale 0-4)
(Hazardous Materials Identification System)
Health (acute effects) = 0
Flammability = 0
Physical Hazard = 0
Other hazards
Results of PBT and vPvB assessment
PBT: N/A
vPvB: N/A

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances
CAS No. / Substance Name:
7440-57-5 Gold
Identification number(s):
EC number: 231-165-9

SECTION 4. FIRST AID MEASURES

Description of first aid measures
If inhaled:
Supply patient with fresh air. If not breathing, provide
artificial respiration. Keep patient warm.
Seek immediate medical advice.
In case of skin contact:
Immediately wash with soap and water; rinse
thoroughly.
Seek immediate medical advice.
In case of eye contact:

Rinse opened eye for several minutes under running water. Consult a physician.
If swallowed:
Seek medical treatment.
Information for doctor
Most important symptoms and effects, both acute and delayed
No data available
Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media
Suitable extinguishing agents
Product is not flammable. Use fire-fighting measures that suit the surrounding fire.
Special hazards arising from the substance or mixture
If this product is involved in a fire, the following can be released:
Metal oxide fume
Advice for firefighters
Protective equipment:
Wear self-contained respirator.
Wear fully protective impervious suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Keep unprotected persons away
Ensure adequate ventilation
Environmental precautions:
Do not allow material to be released to the environment without official permits.
Do not allow product to enter drains, sewage systems, or other water courses.
Do not allow material to penetrate the ground or soil.
Methods and materials for containment and cleanup:
Pick up mechanically.
Prevention of secondary hazards:
No special measures required.
Reference to other sections
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information

SECTION 7. HANDLING AND STORAGE

Handling

Precautions for safe handling

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Information about protection against explosions and fires:

The product is not flammable

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

No special requirements.

Information about storage in one common storage facility:

Do not store together with oxidizing and acidic materials.

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well-sealed containers.

Specific end use(s)

No data available

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters

Components with limit values that require monitoring at the workplace:

None

Additional information: No data

Exposure controls

Personal protective equipment

Follow typical protective and hygienic practices for handling chemicals.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Maintain an ergonomically appropriate working environment.

Breathing equipment:

Use suitable respirator when high concentrations are present.

Protection of hands:

Impervious gloves
Inspect gloves prior to use.
Suitability of gloves should be determined both by material and quality, the latter of which may vary by manufacturer.
Penetration time of glove material (in minutes)
No data available
Eye protection: Safety glasses
Body protection: Protective work clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance:

Form: Solid in various form

Color: Gold colored

Odor: No data available

Odor threshold: No data available.

pH: N/A

Melting point/Melting range: 1064 °C (1947 °F)

Boiling point/Boiling range: 2808 °C (5086 °F)

Sublimation temperature / start: No data available

Flammability (solid, gas): No data available.

Ignition temperature: No data available

Decomposition temperature: No data available

Autoignition: No data available.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower: No data available

Upper: No data available

Vapor pressure: N/A

Density at 20 °C (68 °F): 19.32 g/cm³ (161.225 lbs/gal)

Relative density: No data available.

Vapor density: N/A

Evaporation rate: N/A

Solubility in Water (H₂O): Insoluble

Partition coefficient (n-octanol/water): No data available.

Viscosity:

Dynamic: N/A

Kinematic: N/A

Other information

No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability
Stable under recommended storage conditions.
Thermal decomposition / conditions to be avoided:
Decomposition will not occur if used and stored according to specifications.
Possibility of hazardous reactions
No dangerous reactions known
Conditions to avoid
No data available
Incompatible materials:
Oxidizing agents
Hazardous decomposition products:
Metal oxide fume

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute toxicity:
The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.
LD/LC50 values that are relevant for classification: No data
Skin irritation or corrosion: May cause irritation
Eye irritation or corrosion: May cause irritation
Sensitization: No sensitizing effects known.
Germ cell mutagenicity:
The Registry of Toxic Effects of Chemical Substances (RTECS) contains mutation data for this substance.
Carcinogenicity:
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for this substance.
Reproductive toxicity: No effects known.
Specific target organ system toxicity - repeated exposure: No effects known.
Specific target organ system toxicity - single exposure: No effects known.
Aspiration hazard: No effects known.
Subacute to chronic toxicity: No effects known.
Additional toxicological information:
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity:
No data available
Persistence and degradability
No data available
Bioaccumulative potential
No data available
Mobility in soil
No data available
Additional ecological information:
Do not allow material to be released to the environment without official permits.
Avoid transfer into the environment.
Results of PBT and vPvB assessment
PBT: N/A
vPvB: N/A
Other adverse effects
No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Recommendation
Consult official regulations to ensure proper disposal.
Uncleaned packagings:
Recommendation:
Disposal must be made according to official regulations.

SECTION 14. TRANSPORT INFORMATION

UN-Number
DOT, ADN, IMDG, IATA
N/A
UN proper shipping name
DOT, ADN, IMDG, IATA
N/A
Transport hazard class(es)
DOT, ADR, ADN, IMDG, IATA
Class
N/A
Packing group
DOT, IMDG, IATA
N/A
Environmental hazards:
N/A
Special precautions for user
N/A
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
N/A

Transport/Additional information:
DOT
Marine Pollutant (DOT):
No

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulations
All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.
All components of this product are listed on the Canadian Domestic Substances List (DSL).
SARA Section 313 (specific toxic chemical listings)
Substance is not listed.
California Proposition 65
Prop 65 - Chemicals known to cause cancer
Substance is not listed.
Prop 65 - Developmental toxicity
Substance is not listed.
Prop 65 - Developmental toxicity, female
Substance is not listed.
Prop 65 - Developmental toxicity, male
Substance is not listed.
Information about limitation of use:
For use only by technically qualified individuals.
Other regulations, limitations and prohibitive regulations
Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.
Substance is not listed.
The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.
Substance is not listed.
Annex XIV of the REACH Regulations (requiring Authorisation for use)
Substance is not listed.
REACH - Pre-registered substances
Substance is listed.
Chemical safety assessment:
A Chemical Safety Assessment has not been carried out.

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. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.
