

Safety Data Sheet



1: Identification

1.1: Product Identifier

Product Name: Hg
Product Number(s): 1HG-0001F
CAS Number: 7439-97-6
SDS Document Number: 000174

1.2: Recommended Uses and Restrictions

Recommended Uses

Manufacture of substances

Restrictions

Not for food or drug use.

1.3: Supplier Contact Information

APL Engineered Materials, Inc.
2401 N. Willow Rd.
Urbana, IL 61802
Phone: 217-367-1340
Fax: 217-367-9084

1.4: Emergency Phone Number

United States: 800-255-3924
International: +01-813-248-0585

2: Hazards Identification

2.1: Classifications

Acute Aquatic Toxicity - Category 1
Acute Toxicity, Inhalation - Category 2
Chronic Aquatic Toxicity - Category 1
Specific Target Organ Toxicity - Repeated Exposure - Category 1
Toxic to Reproduction - Category 1B

2.2: GHS Label Elements

Pictograms



Signal Word: Danger

Hazard Statements

H330: Fatal if inhaled.

H360: May damage fertility or the unborn child.
H372: Causes damage to central nervous system through prolonged or repeated exposure. inhalation or skin contact
H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P260: Do not breathe fumes/mist/vapors.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P281: Use personal protective equipment as required.
P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308 + P313: IF EXPOSED or concerned: Get medical advice/attention.
P310: Immediately call a POISON CENTER or doctor/physician.
P391: Collect spillage.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.
P501: Dispose of contents/container to licensed disposal facility.

2.3: Hazards Not Otherwise Classified or Not Covered by GHS

None.

2.4: Amount(s) of substances with unknown toxicity

None

3: Composition/Information on Ingredients

3.1: .Ingredient	.Weight%	.Formula	.CAS Number	.Mol Wt	.EC Number
Hg	100	Hg	7439-97-6	200.59	231-106-7

3.2: Other Hazardous components

none

3.3: Trade Secret Disclaimer

none

3.4: Synonyms

Mercury
quicksilver

4: First Aid Measures

4.1: First Aid

General

Consult with physician and provide this Safety Data Sheet
Remove person from area of exposure and remove any contaminated clothing

In contact with eyes

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids.
Seek medical attention if irritation develops or persists

In contact with skin

Wash thoroughly with soap and plenty of water. Remove all contaminated clothing for proper laundering. Seek medical attention if irritation develops or persists.

If swallowed

If conscious and alert, rinse mouth and drink 2-4 cupfuls of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get medical aid.

If inhaled

Remove from exposure to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

4.2: Most important symptoms and effects; acute and delayed

May damage the unborn child.

Fatal if inhaled

May cause damage to central nervous system through prolonged or repeated exposure via inhalation, skin contact or ingestion

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

If inhaled : Immediately call a POISON CENTER or doctor/ physician.

5: Fire Fighting Measures

5.1: Fire extinguishing media

carbon dioxide

water or alcohol-resistant foam

dry chemical

5.2: Specific hazards arising from the substance or mixture

mercury/mercury oxides

5.3: Special protective equipment and precautions for firefighters.

Wear self contained breathing apparatus for fire fighting if necessary

6: Accidental Release Measures

6.1: Personal precautions, protective equipment, and emergency procedures.

Avoid dust formation.

Avoid breathing dust.

For personal protection see section 8.

Evacuate personnel to safe areas.

Ensure adequate ventilation.

Use personal protective equipment.

Avoid breathing vapors, mist or gas.

6.2: Methods and materials for containment and cleaning up.

Keep in suitable, closed containers for disposal.

Sweep up and shovel.

6.3: Environmental precautions

Do not let product enter drains.

6.4: Disposal

Dispose of in accordance with local regulations.
See section 13.

7: Handling and Storage

7.1: Precautions for safe handling

See precautionary statements in section 2.2.
Avoid formation of dust and aerosols.
Avoid inhalation of vapor or mist.
Provide appropriate exhaust ventilation at places where dust is formed.
Avoid contact with skin and eyes.

7.2: Conditions for safe storage

Keep container tightly closed.
Store away from moisture.
Store in a dry and well-ventilated place.
Store under inert gas.
Containers which have been opened must be carefully resealed and kept upright to prevent leakage.

7.3: Incompatibilities

ammonia
strong oxidizing agents
azides
copper
chlorates
nitrates

8: Exposure Controls/Personal Protection

8.1: Control parameters

OSHA permissible exposure limit (PEL)
0.025 mg/m³
ACGIH threshold limit value (TLV)
0.025 mg/m³
NIOSH recommended exposure limit (REL)
0.05 mg/m³

8.2: Engineering controls

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower
Use adequate ventilation to keep airborne concentrations low

8.3: Personal protective equipment

Eyes
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166
Skin

Wear appropriate, chemical-resistant protective gloves to prevent skin exposure.

Clothing

Wear appropriate protective clothing to prevent skin exposure

Respirator

Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149.
Always use a NIOSH or European Standard EN 149 approved respirator when necessary

9: Physical and Chemical Properties

9.a: Appearance

State: Liquid

Form: Liquid

Color: Silver

9.b: Odor: odorless

9.c: Odor threshold: no data available

9.d: pH: no data available

9.e: Melting point / freezing point: -38.87 °C (-37.97 °F) - lit.

9.f: Initial boiling point and range: 356.6 °C (673.9 °F) - lit.

9.g: Flashpoint: no data available

9.h: Evaporation rate: no data available

9.i: Flammability (solid, gas): no data available

9.j: Upper/lower flammability or explosive limits: no data available

9.k: Vapor pressure: < 0.01 hPa (< 0.01 mmHg) at 20 °C (68 °F)
1 hPa (1 mmHg) at 126 °C (259 °F)

9.l: Vapor density: 6.93 - (Air = 1.0)

9.m: Relative density: 13.55 g/cm³ at 25 °C (77 °F)

9.n: Water Solubility: 0.00006 g/l at 25 °C (77 °F)

9.o: Partition coefficient: n-octanol/water: no data available

9.p: Auto-ignition temperature: no data available

9.q: Decomposition temperature: no data available

9.r: Viscosity: no data available

10: Stability and Reactivity

10.1: Reactivity

no data available

10.2: Chemical stability

Stable under recommended storage conditions.

10.3: Possibility of hazardous reactions

no data available

10.4: Conditions to avoid

exposure to water

In the event of fire: see section 5

10.5: Incompatible materials

See section 7.3.

10.6: Hazardous decomposition products

In the event of fire: see section 5.2

Other decomposition products - no data available

11: Toxicological Information

11.1: Toxicity data

Acute toxicity - Oral

no data available

Acute toxicity - Dermal

no data available

Acute toxicity - Inhalation

LC50 Inhalation - rat - male - 2 h - < 27 mg/m³

Skin corrosion/irritation

no data available

Eye damage/irritation

No data available.

Respiratory irritation

No data available.

Germ cell mutagenicity

no data available

Reproductive toxicity

Suspected reproductive toxicant.

Specific organ toxicity - single exposure

No data available.

Specific organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

No data available.

Additional information

RTECS: OV4550000

ACGIH carcinogenicity

The ACGIH has not identified any component of this product present at levels greater than or equal to 0.1% as a probable, possible or confirmed human carcinogen.

IARC carcinogenicity

The IARC has not identified any component of this product present at levels greater than or equal to 0.1% as a probable, possible or confirmed human carcinogen.

NTP carcinogenicity

The NTP has not identified any component of this product present at levels greater than or equal to 0.1% as a probable, possible or confirmed human carcinogen.

OSHA carcinogenicity

OSHA has not identified any component of this product present at levels greater than or equal to 0.1% as a probable, possible or confirmed human carcinogen.

11.2: Routes of exposure

See section 2.2

11.3: Symptoms of exposure

See section 4.2

11.4: Delayed and immediate effects of exposure

Chronic exposure to mercury causes damage to central nervous system.

12: Ecological Information

12.1: Ecotoxicity

Toxicity to fish

mortality LC50 - *Cyprinus carpio* (Carp) - 0.160 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

No data available

Toxicity to algae/bacteria

No data available

12.2: Persistence and degradability

no data available

12.3: Bioaccumulative potential

Carassius auratus (goldfish) - 1,789 d - 0.25 µg/l, Bioconcentration factor (BCF): 155,986

12.4: Mobility in soil

no data available

12.5: Other effects

Very toxic to aquatic life with long lasting effects.

13: Disposal Considerations

13.1: Waste treatment methods

No data available

13.2: Safe handling

See section 7.1 .

13.3: Product disposal

Contact a licensed professional waste disposal service to dispose of this material.

13.4: Packaging disposal

Dispose of as unused product.

14: Transport Information

14.1: DOT(US)

UN Number: 2809

Proper Shipping Name: Mercury

Shipping Class(es): 8 (6.1)

Marine Pollutant: No

14.2: IMDG

UN Number: 2809

Proper Shipping Name: MERCURY

Packing Group: III

Shipping Class(es): 8 (6.1)

Marine Pollutant: No

14.3: IATA

UN Number: 2809

Proper Shipping Name: Mercury

Packing Group: III

Shipping Class(es): 8 (6.1)

14.4: Special Shipping Precautions

None

15: Regulatory Information

15.1: TSCA inventory

This material is listed on the TSCA inventory.

15.2: SARA 302 components

This material is not subject to the reporting requirements of SARA Title III, Section 302.

15.3: SARA 313 components

This material is subject to the reporting requirements of SARA Title III, Section 313.

15.4: SARA 313/312 hazards

Chronic health hazard.

Acute health hazard.

15.5: Other information

Pennsylvania Right To Know Components -This product contains materials listed on the Pennsylvania Right to Know list

New Jersey Right To Know Components -This product contains materials listed on the New Jersey Right to Know list

Massachusetts Right To Know Components - This product contains materials listed on the Massachusetts Right to Know list

California Prop. 65 Components - This product does contain chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16: Additional Information

16.1: NFPA

Health: 3

Fire: 0

Reactivity: 0

Special:

16.2: HMIS

Health: 3

Chronic: *

Flammability: 0

Physical Hazard: 0

16.3: Disclaimers

The information herein is believed to be accurate and reliable as of the date compiled. However, APL Engineered Materials, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information on this data sheet or any use of the product based upon this information.

For industrial use only. Not for drug, household or other uses

16.4: References

Information contained on this SDS sheet was obtained from some or all of the following sources: American Conference of Governmental Industrial Hygienists (ACGIH), TLVs and BEIs; National Institute for Occupational Safety and Health (NIOSH), Pocket Guide to Chemical Hazards; European Chemicals Agency, <http://echa.europa.eu/>; The National Institute of Health, U.S National Library of Medicine, TOXNET, Toxicology Data Network; and the Registry of Toxic Effects of Chemical Substances (RTECS) database.

16.5: Version

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