

SAFETY DATA SHEET

MERCURY

Section I – Hazardous Ingredients / Identity Information.

Trade Names / Synonyms: Metallic Mercury
Colloidal Mercury
Inorganic Mercury
Quicksilver
Hydrargyrum

Chemical Family: Inorganic metal – CERCLA Rating (Scale 0-3)
Health – 3
Fire – 0
Reactivity – 0
Persistence – 0

Chemical Formula: Hg

CAS Number: 7439-97-6

Molecular Weight: 200.59 - NERA Rating (Scale 0 – 4)
Health – 0
Fire – 0
Reactivity – 0

DOT hazard class: ORM-B

DOT identification number: NA 2809

Section II – Physical / Chemical Characteristics.

Boiling Point: 674 degrees F, 356.7 degrees C

Specific Gravity: (H₂O=1) 13.9

Vapour Pressure: 0.0012 mmHG @ 20 Degrees C

Melting Point: - 38.9 degrees C

Vapour Density: (Air=1) 7.0

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Solubility in Water: Insoluble

Appearance & Odour: Silver / White liquid metal: Odourless

Section III – Fire and explosion hazard data.

Flash point: Non Flammable

Extinguishing method: Small Fires – dry chemical, carbon dioxide, water spray or foam.
Large Fires – water spray or foam.

Special fire fighting procedures: Move containers from fire area if possible, cool Containers exposed to flames with water from outside until well after the fire is out. Keep up-wind.

Unusual fire and explosion hazards: Slight fire and explosion hazard when exposed to heat or flames.

Section IV – Reactivity Data

Stability: Stable under normal temperatures and pressures

Conditions to avoid: Elevated temperatures and open flames

Incompatible Materials: Acetylinic Compounds

Ammonia

Boron

Diiodophosphide

Ethylene Oxide

Methylazide

Methylsilane

Metals – Aluminium, Potassium, Lithium, Sodium,
Rubidium

Oxidants – Bromine, Peroxyformic acid, Chlorine Dioxide,
Nitric acid

Tetracarbonylnickel

Nitromethane

Silver Perchlorate

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Hazardous Decomposition or By-products: N/A

Hazardous Polymerization: None known

Section V – Health Hazard Data

Skin Contact:

Acute Exposure: May cause redness and irritation. Sensitization dermatitis may occur in previously exposed workers. Substance may be absorbed through the skin causing anuria.

Chronic Exposure: May result in psychic disturbances, peripheral neuropathy and kidney damage as in chronic inhalation.

First Aid:

Remove contaminated clothing immediately. Wash affected area with soap or mild detergent and large amounts of water until no evidence of substance remains (approx 15 – 20 minutes). Get medical attention immediately.

Ingestion:

Acute Exposure: Metallic Mercury generally shows no effect. However in exceptional cases existing internal sores may allow Mercury to accumulate with serious or even fatal results. Also aspiration into the lungs is a remote possibility, and would cause a permanent hazard.

First Aid:

If victim is conscious and not convulsive, immediately give two to four glasses of water and induce vomiting by touching finger to back of throat. From sitting position, head must be lower than hips to prevent aspiration. Keep patient warm and at rest. Get medical attention immediately.

Eye Contact:

Acute Exposure: Contact may cause irritation.

Chronic Exposure: Mercury may be deposited in the lens of the eye, causing visual disturbances.

First Aid:

Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (approx 15 – 20 minutes). Get medical attention immediately.

Section VI – Precautions for safe handling and use.

Spillage:

Isolate the area of the leak or spill. Wearing appropriate protective equipment attempt to stop the leak. For small spills, take up with sand or other absorbent material and place into containers for later reclamation or disposal. For large spills, dike far ahead of the spill for later reclamation or disposal. Keep unnecessary people away. Isolate hazard area and deny entry.

Section VII – Control Measures

Respiratory Protection:

Below 1MG/M3: Use respirator fitted with Mercury vapour absorbing cartridges and excess use indicator.

1MG/M3: Use supplied air respirator or self contained breathing apparatus.

5MG/M3: Use supplied air respirator with a full face piece, helmet, or hood, or self contained breathing apparatus with a full face piece.

28MG/M3: Use type C supplied air respirator with a full face piece operated in pressure demand or other positive pressure mode, or with full face piece, helmet or hood in continuous flow.

Assemtech Europe Ltd Mercury switches are manufactured in sturdy and robust steel or glass capsules, and when handled with not cause any risk to health. If the switches are damaged, refer to the instructions below for immediate action, or contact Assemtech Europe Ltd.

TRANSPORT EMERGENCY INSTRUCTIONS

UN 2809	IMCO Class. 8	IMCO Page. 8191	Packing Group III
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Emergency Schedule: 8 – 12

Technical name of dangerous Substance: Mercury (metal)

Solid	Liquid X	Miscible with water	Immiscible with water X
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Flash Point N/A	Boiling Point 356.7 deg C	Melting Point -38.9 deg C	Concentration 99.99%
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Nature of primary hazard: Toxic by vapour inhalation

Nature of secondary hazard: Highly corrosive to Aluminium

Protective Devices: Self-contained breathing apparatus

Emergency actions by sea

(Ashore: Notify Fire Brigade, Police, and competent authorities immediately)

Cleaning up of spillage:

- 1) Contain with wet sand and recover if possible
- 2) Treat with 50/50 Sulphur / slaked Lime paste to form solid paste

Fire fighting Recommendations:

Non-Combustible, but evolves TOXIC VAPOUR when heated. Use self-contained breathing apparatus when dealing with adjacent cargoes.

Medical First Aid: IMCO First Aid guide table no. 105

IF SWALLOWED: Seek medical advice

BY SKIN CONTACT: Wash off with water and seek medical advice

BY INHALATION: Seek medical advice

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