SAFETY DATA SHEET

1. Identification

Product Name: Mercury (Certified ACS)
Cat No.: M141-1LB; M141-6LB
Synonyms: Colloidal mercury; Hydrargyrum; Metallic mercury
Recommended Use: Laboratory chemicals.
Uses advised against: Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company: Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number: CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Inhalation Toxicity - Vapors</td>
<td>Category 2</td>
</tr>
<tr>
<td>Reproductive Toxicity</td>
<td>Category 1B</td>
</tr>
<tr>
<td>Specific target organ toxicity - (repeated exposure)</td>
<td>Category 1</td>
</tr>
<tr>
<td>Target Organs - Central nervous system (CNS), Kidney.</td>
<td></td>
</tr>
</tbody>
</table>

Label Elements

Signal Word: Danger

Hazard Statements
Fatal if inhaled
May damage the unborn child
Causes damage to organs through prolonged or repeated exposure
Precautionary Statements
Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear respiratory protection
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Response
IF exposed or concerned: Get medical attention/advice
Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a POISON CENTER or doctor/physician
Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC).
Very toxic to aquatic life with long lasting effects

3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>7439-97-6</td>
<td>100</td>
</tr>
</tbody>
</table>

4. First-aid measures

General Advice
Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin Contact
Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Inhalation
Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

Ingestion
Do NOT induce vomiting. Call a physician or poison control center immediately.

Most important symptoms and effects
None reasonably foreseeable.
Notes to Physician

Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media
Substance is nonflammable; use agent most appropriate to extinguish surrounding fire. approved class D extinguishers.

Unsuitable Extinguishing Media
Water may be ineffective

Flash Point
Not applicable
Method -
No information available

Autoignition Temperature
No information available

Explosion Limits
Upper
No data available
Lower
No data available

Sensitivity to Mechanical Impact
No information available

Sensitivity to Static Discharge
No information available

Specific Hazards Arising from the Chemical
Very toxic. Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Keep product and empty container away from heat and sources of ignition. Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous Combustion Products
Mercury oxide. Toxic fumes.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>N/A</td>
</tr>
</tbody>
</table>

6. Accidental release measures

Personal Precautions
Ensure adequate ventilation. Use personal protective equipment as required. No special precautions required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

Environmental Precautions
Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Should not be released into the environment. Local authorities should be advised if significant spills cannot be contained.

Methods for Containment and Clean Up
Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Pick up and transfer to properly labelled containers.

7. Handling and storage

Handling
Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.

Storage.

8. Exposure controls / personal protection

Exposure Guidelines
### 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Component</th>
<th>Physical State</th>
<th>Appearance</th>
<th>Odor</th>
<th>Odor Threshold</th>
<th>pH</th>
<th>Melting Point/Range</th>
<th>Boiling Point/Range</th>
<th>Flash Point</th>
<th>Evaporation Rate</th>
<th>Flammability (solid, gas)</th>
<th>Flammability or explosive limits</th>
<th>Upper</th>
<th>Lower</th>
<th>Vapor Pressure</th>
<th>Vapor Density</th>
<th>Specific Gravity</th>
<th>Solubility</th>
<th>Partition coefficient; n-octanol/water</th>
<th>Autoignition Temperature</th>
<th>Decomposition Temperature</th>
<th>Viscosity</th>
<th>Molecular Formula</th>
<th>Molecular Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>Liquid</td>
<td>Silver</td>
<td>Odorless</td>
<td>No information available</td>
<td>9.359</td>
<td>356.72 °C / 674.1 °F</td>
<td>-38.87 °C / -38 °F</td>
<td>Not applicable</td>
<td>No information available</td>
<td>Not applicable</td>
<td>No data available</td>
<td>No data available</td>
<td>0.002 mmHg @ 25 °C</td>
<td>7.0</td>
<td>13.59 (H2O=1)</td>
<td>No data available</td>
<td>No information available</td>
<td>No information available</td>
<td>No information available</td>
<td>Hg</td>
<td>200.59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 10. Stability and reactivity

**Reactive Hazard**

None known, based on information available
Stability  Stable under normal conditions.

Conditions to Avoid  Incompatible products. Excess heat.

Incompatible Materials  Strong oxidizing agents, Ammonia, Metals, Halogens

Hazardous Decomposition Products  Mercury oxide, Toxic fumes

Hazardous Polymerization  Hazardous polymerization does not occur.

Hazardous Reactions  None under normal processing.

## 11. Toxicological information

### Acute Toxicity

#### Product Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>Not listed</td>
<td>Not listed</td>
<td>LC50 &lt; 27 mg/m³ (Rat) 2 h</td>
</tr>
</tbody>
</table>

#### Toxicologically Synergistic Products

No information available

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation  No information available

Sensitization  No information available

Carcinogenicity  The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>IARC</th>
<th>NTP</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>7439-97-6</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

#### Mutagenic Effects

No information available

#### Reproductive Effects

No information available.

#### Developmental Effects

May cause harm to the unborn child.

#### Teratogenicity

No information available.

#### STOT - single exposure

None known

#### STOT - repeated exposure

Central nervous system (CNS) Kidney

#### Aspiration hazard

No information available

#### Symptoms / effects, both acute and delayed

No information available

#### Endocrine Disruptor Information

No information available

#### Other Adverse Effects

The toxicological properties have not been fully investigated.

## 12. Ecological information

### Ecotoxicity

The product contains following substances which are hazardous for the environment. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system.

<table>
<thead>
<tr>
<th>Component</th>
<th>Freshwater Algae</th>
<th>Freshwater Fish</th>
<th>Microtox</th>
<th>Water Flea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>Not listed</td>
<td>0.9 mg/L LC50 96h</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>
Mercury (Certified ACS)

<table>
<thead>
<tr>
<th>Persistence and Degradability</th>
<th>Insoluble in water May persist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioaccumulation/ Accumulation</td>
<td>No information available.</td>
</tr>
<tr>
<td>Mobility</td>
<td>Is not likely mobile in the environment due its low water solubility.</td>
</tr>
</tbody>
</table>

### 13. Disposal considerations

**Waste Disposal Methods**
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

<table>
<thead>
<tr>
<th>Component</th>
<th>RCRA - U Series Wastes</th>
<th>RCRA - P Series Wastes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury - 7439-97-6</td>
<td>U151</td>
<td>-</td>
</tr>
</tbody>
</table>

### 14. Transport information

**DOT**
- **UN-No**: UN2809
- **Proper Shipping Name**: Mercury
- **Hazard Class**: 8
- **Subsidiary Hazard Class**: 6.1
- **Packing Group**: III

**TDG**
- **UN-No**: UN2809
- **Proper Shipping Name**: Mercury
- **Hazard Class**: 8
- **Subsidiary Hazard Class**: 6.1
- **Packing Group**: III

**IATA**
- **UN-No**: UN2809
- **Proper Shipping Name**: Mercury
- **Hazard Class**: 8
- **Subsidiary Hazard Class**: 6.1
- **Packing Group**: III

**IMDG/IMO**
- **UN-No**: UN2809
- **Proper Shipping Name**: Mercury
- **Hazard Class**: 8
- **Packing Group**: III

### 15. Regulatory information

**United States of America Inventory**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>TSCA</th>
<th>TSCA Inventory notification - Active-Inactive</th>
<th>TSCA - EPA Regulatory Flags</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>7439-97-6</td>
<td>X</td>
<td>ACTIVE</td>
<td>S;12C</td>
</tr>
</tbody>
</table>

**Legend:**
- **TSCA** US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)
- **X**: Listed
- **'-'**: Not Listed
- **S**: Indicates a substance that is identified in a proposed or final Significant New Use Rule.

**TSCA 12(b) - Notices of Export**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>TSCA 12(b) - Notices of Export</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>7439-97-6</td>
<td>Section 5</td>
</tr>
</tbody>
</table>
International Inventories
Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>PICCS</th>
<th>ENCS</th>
<th>ISHL</th>
<th>AICS</th>
<th>IECSC</th>
<th>KECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>7439-97-6</td>
<td>X</td>
<td>-</td>
<td>231-106-7</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>KE-23117</td>
</tr>
</tbody>
</table>

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

U.S. Federal Regulations

SARA 313

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>7439-97-6</td>
<td>100</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories
See section 2 for more information

CWA (Clean Water Act)

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Hazardous Substances</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Clean Air Act

OSHA - Occupational Safety and Health Administration
Not applicable

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

<table>
<thead>
<tr>
<th>Component</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA EHS RQs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>1 lb</td>
<td>-</td>
</tr>
</tbody>
</table>

California Proposition 65
This product contains the following Proposition 65 chemicals.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>California Prop. 65</th>
<th>Prop 65 NSRL</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>7439-97-6</td>
<td>Developmental</td>
<td>-</td>
<td>Developmental</td>
</tr>
</tbody>
</table>

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

U.S. Department of Transportation
Reportable Quantity (RQ):
Y
DOT Marine Pollutant
N
DOT Severe Marine Pollutant
N

U.S. Department of Homeland Security
This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade
No information available

Authorisation/Restrictions according to EU REACH

|-----------|-------------------------------|-------------------------------|-----------------------|
Mercury (Certified ACS)  Revision Date  24-Dec-2021

<table>
<thead>
<tr>
<th>Substances Subject to Authorization</th>
<th>Restrictions on Certain Dangerous Substances</th>
<th>1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>Use restricted. See item 18[a]. (see link for restriction details) Use restricted. See item 30. (see link for restriction details) Use restricted. See item 75. (see link for restriction details)</td>
<td></td>
</tr>
</tbody>
</table>


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

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>OECD HPV</th>
<th>Persistent Organic Pollutant</th>
<th>Ozone Depletion Potential</th>
<th>Restriction of Hazardous Substances (RoHS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>7439-97-6</td>
<td>Listed</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>0.1% (Max. Conc.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>7439-97-6</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>X</td>
<td>Annex I - Y29</td>
</tr>
</tbody>
</table>

16. Other information

Prepared By  Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date  20-Aug-2014
Revision Date  24-Dec-2021
Print Date  24-Dec-2021
Revision Summary  This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS