

**BACHARACH, INC.**  
**MATERIAL SAFETY DATA SHEET**

This Material Safety Data Sheet has been prepared to comply with the EC Directive, Canadian WHMIS and OSHA Hazard Communication Regulations.

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION  
AND THE COMPANY/UNDERTAKING**

Bacharach, Inc.  
621 Hunt Valley Circle  
New Kensington, PA 15068

Emergency Phone: (800) 424-9300 (Chemtrec)  
Information Phone: (724) 334-5760  
Fax: (724) 334-5763

**Product Name:** Mercury Thermometer

**Product Number:** 12-0020, 12-0177

**MSDS Number:** 99-0094

**Revision Number:** 11

**MSDS Date of Preparation/Revision:** 11/30/09

**SECTION 2: COMPOSITION/ INFORMATION INGREDIENTS**

| Chemical Name | CAS# / EINECS#        | %       | EU Classification (67/548/EEC) |
|---------------|-----------------------|---------|--------------------------------|
| Mercury       | 7439-97-6 / 231-106-7 | Varies  | T+, N R26, R48/23, R61, R50/53 |
| Glass         | Mixture               | Balance | Not Applicable                 |

See Section 16 for further information on EU Classification.

**SECTION 3: HAZARDS IDENTIFICATION**

Odorless, silvery liquid with a metallic luster contained in a glass thermometer.

**Emergency Overview:** Contact with mercury liquid may cause eye irritation or damage. May cause skin irritation. May be absorbed through the skin in toxic amounts. Inhalation of vapors and ingestion may cause poisoning. Prolonged overexposure may cause damage to the central nervous system and kidney. Mercury has been shown to cause adverse reproductive effects based on animal data. Thermometers may shatter at high temperatures.

**EU Preparation Classification (1999/45/EC):** Very Toxic (T+), Dangerous for Environment (N) R26, R49/23, R61, R50/53

**SECTION 4: FIRST AID**

**Eye Contact:** Immediately flush with water for at least 15 minutes, lifting the upper and lower lids. Get immediate medical attention.

**Skin Contact:** Immediately remove contaminated clothing and wash thoroughly with soap and water. Get medical attention. Launder contaminated clothing before reuse. (Discard contaminated shoes)

**Inhalation:** Immediately remove victim to fresh air. Give artificial respiration if breathing has stopped. Get immediate medical attention.

**Ingestion:** Get immediate medical attention. If the victim is conscious, induce vomiting as directed by medical personnel. Never give anything by mouth to or induce vomiting in a person who is unconscious or convulsing.

**SECTION 5: FIRE AND EXPLOSION HAZARD DATA**

**Extinguishing Media:** Use any media suitable for the surrounding fire.

**Special Fire Fighting Procedures:** Firefighters should wear approved self-contained breathing apparatus and full protective clothing for all fires involving chemicals.

**Unusual Fire And Explosion Hazards:** Mercury is not combustible but will vaporize when heated, creating toxic fumes. Thermometers may shatter at high temperatures.

**Hazardous Combustion Products:** May emit mercury vapors.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

Collect spilled mercury using a mercury spill kit or suction pump and aspirator bottle. Cover fine droplets with calcium polysulfide or excess sulfur. Collect into closed container. Prevent from entering sewers or waterways.

**SECTION 7: HANDLING AND STORAGE**

**Work Practices:** Avoid eye and skin contact. Avoid breathing vapors. Wash thoroughly after contact. Spilled mercury gives off odorless, toxic vapors. Thoroughly clean up all mercury if thermometer breaks.

**Special Precautions:** Do not allow glass thermometers to be exposed to extreme heat.

**Storage:** Store in a cool area. Protect from breakage. Broken container s may be hazardous when empty since they retain mercury residues. Observe all warnings and precautions for the product.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

| Chemical Name | Exposure Limits   |
|---------------|---|
| Mercury       | 0.1 mg/m3 Ceiling OSHA PEL<br>0.025 mg/m3 (skin) TWA ACGIH TLV<br>0.1 mg/m3 (skin) TWA DFG TRGS 900 |
| Glass         | Not Applicable  |

**Ventilation:** No special ventilation is required for normal use.

**Respiratory Protection:** None needed for normal use. Wear a NIOSH approved respirator with a mercury vapor cartridge or self contained breathing apparatus if exposures limits are exceeded or for spill clean-up.

**Gloves:** None needed for normal use. Wear Saranex or Barricade gloves for spill clean-up.

**Eye Protection:** None needed for normal use. Wear safety glasses or goggles for spill clean-up.

**Other Protective Equipment:** None needed for normal use. Wear impervious clothing if needed for spill clean-up.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance and Odor:** Odorless, silvery liquid with a metallic luster contained in a glass thermometer.

**pH:** N/A

**Boiling Point:** 674°F/357°C

**Melting Point:** -38°F/-39°C

**Solubility In Water:** Insoluble

**Octanol/Water Coefficient:** Not determined

**Specific Gravity:** 13.55

**Vapor Pressure:** 0.0018 mmHg @ 25°C

**Vapor Density:** 7.0

**Percent Volatile:** 100% @ 21°C

**Flash Point:** Not combustible

**Test Method:** N/A

**Autoignition Temperature:** N/A

**Flammable Limits:**

**LEL:** N/A

**UEL:** N/A

**SECTION 10: STABILITY AND REACTIVITY**

**Stability:** Stable

**Conditions to Avoid:** High temperatures.

**Incompatibility:** Acetylene, ammonia, ethylene oxide, chlorine dioxide, azides, metal oxides, methyl silane, lithium, rubidium, oxygen, metal carbonyls.

**Hazardous Decomposition Products:** At high temperatures, mercury vaporizes to form highly toxic mercury vapors.

**Hazardous Polymerization:** Will not occur.

**Conditions to Avoid:** N/A

#### SECTION 11: TOXICOLOGICAL INFORMATION

##### Potential Health Effects:

**Eye Contact:** May cause irritation, redness and blurred vision. May cause permanent eye damage.

**Skin Contact:** May cause irritation and allergic reaction. May be absorbed through the skin in toxic amounts with symptoms similar to those listed under ingestion.

**Inhalation:** Vapors may cause sore throat, coughing, pain, breathing difficulties, shortness of breath, headache, muscle weakness, anorexia, gastrointestinal disturbances, ringing in the ears, liver changes, fever, bronchitis, and pneumonitis. Allergic reaction, kidney & brain damage may also occur.

**Ingestion:** Burning of the mouth and throat, thirst, nausea and vomiting. Metallic mercury is not usually well enough absorbed to cause acute effects.

**Chronic Health Effects:** Prolonged overexposure to mercury may cause mercurialism, which is characterized by fine tremors and erethism (manifested by abnormal shyness, depression, despondency, irritability or excitability). In severe cases hallucinations, loss of memory and mental deterioration may occur. Other effects include kidney damage, stomatitis, loosening of the teeth, blue lines on the gums, diarrhea, weight loss, and sensitization. Mercury is reported to cause adverse reproductive effects in lab animals.

**Carcinogen Status:** Mercury is not listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH, OSHA or the EU Directive.

**Medical Conditions Aggravated by Exposure:** Pre-existing respiratory, kidney and nervous system disorders may be aggravated by exposure. Persons with known allergies or known sensitization to mercury may be aggravated by exposure.

**Acute Toxicity Data:** Mercury: No data available

**Irritancy Data:** Mercury is an eye, skin and respiratory irritant.

**Sensitization:** Mercury has been reported to cause sensitization in humans and animals.

**Reproductive Toxicity:** Mercury has been reported to cause reproductive toxicity in laboratory animals. It is reported to cause birth defects and decrease fertility in males and females

**Teratogenicity:** Mercury has been reported to cause teratogenicity in laboratory animals.

**Mutagenicity:** Mercury is mutagenic in some test systems.

**Synergistic Effects:** Other heavy metals with the same target organs may cause additive adverse health effects.

#### SECTION 12: ECOLOGICAL INFORMATION

Very toxic to aquatic organisms.

Mercury: LC50/96-hour Catfish 0.35 mg/l; LC50/96-hour tadpoles 0.051 ppm

#### SECTION 13: DISPOSAL

Dispose in accordance with all local, state and federal regulations.

RCRA Hazardous Waste Codes: U151

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| <b>SECTION 14: TRANSPORTATION DATA</b> |
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**DOT Shipping Name:** Mercury, Contained In Manufactured Article**DOT Hazard Class:** 8, PG III**UN Number:** UN2809**DOT Labels Required (49CFR172.101):** Corrosive**Hazardous Substance (49CFR172.101):** Mercury**Reportable Quantity:** 1 pound**Emergency Response Guide Number:** 172**IATA Shipping Name:** Mercury, Contained In Manufactured Article**IATA Hazard Class:** 8, PG III**UN Number:** UN2809**IATA Hazard Labels Required:** Corrosive (Passenger And Cargo Aircraft See 805)

|   |
|---|
| <b>SECTION 15: OTHER REGULATORY INFORMATION</b> |
|---|

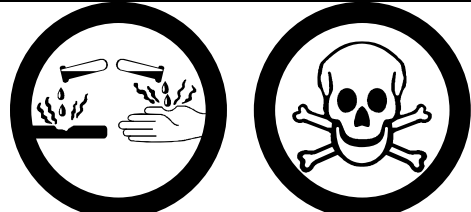
**U.S. FEDERAL REGULATIONS:****SARA 311/312:** Hazard Categories for SARA Section 311/312 Reporting: Acute health, Chronic health.**SARA 313:** This product contains the following chemicals subject to Annual Release Reporting Requirements under SARA Section 313 (40 CFR 372):

Mercury

7439-97-6

Various Amount

**CERCLA Section 103 Reportable Quantity:** 1 lb.**US Toxic Substances Control Act:** All of the components of this product are listed on the EPA TSCA Inventory.**STATE REGULATIONS:****California Proposition 65:** This product contains the following substances known to the State of California to cause developmental toxicity (birth defects): Mercury.**INTERNATIONAL REGULATIONS:****Australian Inventory Of Chemical Substances:** All of the components of this product are listed on the AICS Inventory.**Canadian Environmental Protection Act:** All of the components of this product are listed on the Canadian Domestic Substances List.**Canadian WHMIS Classification:**



|   |   |
|---|---|
|  | Class D - Division 1A (Very Toxic Material causing immediate and serious toxic effects)<br>Class D - Division 2A (Very Toxic Material causing other toxic effects)<br>Class E (Corrosive) |
|---|---|

This product has been classified in accordance with the hazard criteria in the CPR and the MSDS contains all the information required by the CPR.

**Inventory of Existing Chemical Substances in China:** All the components are listed on the State Environmental Protection Administration of the Peoples Republic of China IECSC.

**European Inventory Of Commercial Chemical Substances:** All of the components of this product are listed on the EINECS Inventory.

**European Community Labeling:** Contains Mercury

|   |   |  |
|---|---|--|
|  |  | <p>R26 Very toxic by inhalation.<br/> R48/23 Toxic: danger of serious damage to health by prolonged exposure through inhalation.<br/> R61 May cause harm to the unborn child.<br/> R50/53 Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.</p> <p>S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).<br/> S53 Avoid exposure - obtain special instructions before use.<br/> S60 This material and its container must be disposed of as hazardous waste.<br/> S61 Avoid release to the environment. Refer to special instructions/safety data sheet</p> |
| Very Toxic  | Dangerous for the Environment   |  |

**Japan MITI:** All of the components of this product are existing chemical substances as defined in the Chemical Substance Control Law.

**Korean Existing Chemical List:** All of the components of this product are listed on the KECL Inventory.

**New Zealand Inventory of Chemicals:** All the components in this product are listed on the NZIoC.

**Philippines Inventory of Chemicals and Chemical Substances:** All of the components in this product are listed on the PICCS Inventory.

#### SECTION 16: OTHER INFORMATION

**NFPA Hazard Rating:** HEALTH: 3 FIRE: 0 REACTIVITY: 0

**EU Classes and Risk Phrases for Reference (See Sections 2 and 3):**

T+ Very Toxic

N Dangerous for the Environment

R26 Very toxic by inhalation.

R48/23 Toxic: danger of serious damage to health by prolonged exposure through inhalation.

R61 May cause harm to the unborn child.

R50/53 Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

**Date of Latest MSDS Revision:** 03/10/06

**Revision Summary:** Section 2, 3, 4, 12, 15, 16

The preceding information is believed to be correct and current as of the date of preparation of this Material Safety Data Sheet. Since the use of this information and the conditions of use of the product are not within the control of Bacharach, Inc., it is the users obligation to assure safe use of this product.