

S-29540

**MSDS MATERIAL SAFETY DATA SHEET****\*\*\*\* SECTION 1 – CHEMICAL PRODUCT AND COMPANY INFORMATION \*\*\*\*****MERCURY (METALLIC)****Synonyms:***Quicksilver; hydrargyrum; Liquid Silver***Company Identification:**Mercury Waste Solutions, Inc.  
21211 Durand Avenue  
Union Grove, WI 53182For information in North America, call: 800-741-3343  
For emergencies in the US, call CHEMTREC: 800-424-9300**\*\*\*\* SECTION 2 – COMPOSITION, INFORMATION ON INGREDIENTS \*\*\*\***

CAS #	Chemical Name	%	EINECS #
7439-97-6	MERCURY	approx. 100	231-106-7

*Hazard Symbols:* T (Toxic)*Risk Phrases:* 23 (Toxic by Inhalation), 33 (Danger of Cumulative Effects)**\*\*\*\* SECTION 3 – HAZARDS IDENTIFICATION \*\*\*\*****Appearance:** silver, liquid**Warning!** Causes skin irritation. May cause allergic skin reaction. This substance has caused adverse reproductive and fetal effects in animals. May be absorbed through the skin. Causes digestive tract irritation. May cause central nervous system effects. May cause severe eye irritation and possible injury. Causes severe respiratory tract irritation. Inhalation of fumes may cause metal-fume fever.**Target Organs:** Blood, central nervous system.**Potential Health Effects:****Eye:** Contact with eyes may cause severe irritation, and possible eye burns. Vapors may cause eye irritation.**Skin:** May cause skin irritation. May be absorbed through the skin in harmful amounts. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Chronic exposure to mercury may cause permanent central nervous system damage, fatigue, weight loss, tremors, personality changes.**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause effects similar to those for inhalation exposure.**Inhalation:** Causes respiratory tract irritation. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count. May cause central nervous system effects including vertigo, anxiety, depression, muscle incoordination, and emotional instability. May cause severe respiratory tract irritation.**Chronic:** Chronic exposure to mercury may cause permanent central nervous system damage, fatigue, weight loss, tremors, personality changes.**\*\*\*\* SECTION 4 – FIRST AID MEASURES \*\*\*\*****Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately.**Skin:** Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid immediately. Wash mouth out with water.**Inhalation:** Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.**Notes to Physician:** Treat symptomatically and supportively.**Antidote:** The use of Dimercaprol or BAL (British Anti-Lewisite) as a chelating agent should be determined by qualified medical personnel. The use of d-Penicillamine as a chelating agent should be determined by qualified medical personnel.

**\*\*\*\* SECTION 5 – FIRE FIGHTING MEASURES \*\*\*\***

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Combustion generates toxic fumes.

**Extinguishing Media:** Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

Autoignition Temperature: Not applicable. Flash point: Not applicable.  
 Explosion Limits, Lower: Not applicable. NFPA Rating: Health (4 - Poison) Flammability (0)  
 Explosion Limits, Upper: Not applicable. Contact (3 - Severe) Reactivity (1 - Slight)

**\*\*\*\* SECTION 6 – ACCIDENTAL RELEASE MEASURES \*\*\*\***

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section).

**\*\*\*\* SECTION 7 – HANDLING AND STORAGE \*\*\*\***

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

**Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from metals. Poison room locked.

**\*\*\*\* SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION \*\*\*\***

**Engineering Controls:** Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

**Exposure Limits:**

ACGIH	NIOSH	OSHA
Alkyl compounds, as Hg: 0.01 mg/m <sup>3</sup> ; Aryl compounds, as Hg: 0.1 mg/m <sup>3</sup> ; Inorganic forms including metallic mercury 0.025 mg/m <sup>3</sup> ; 0.03 mg/m <sup>3</sup> STEL; as Hg: skin - potential for cutaneous absorption	0.05 mg/m <sup>3</sup> TWA 10 mg/m <sup>3</sup> IDLH	Aryl and inorganic compounds, 1 mg/10m <sup>3</sup> ; Organo (alkyl) mercury compounds: 0.01 mg/m <sup>3</sup> TWA; C 0.04 mg/m <sup>3</sup>

**Personal Protective Equipment:**

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

**Skin:** Wear appropriate gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** 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.

**\*\*\*\* SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES \*\*\*\***

Physical State: Liquid Boiling Point: 356.5 deg C @ 760.00mmHg  
 Appearance: Silver Freezing/Melting Point: -38.87 deg C  
 Odor: Odorless. Decomposition Temperature: Not available.  
 pH: Not applicable. Solubility: insoluble  
 Vapor Pressure: 0.002 mm Hg @ 25C Specific Gravity/Density: 13.5400g/cm<sup>3</sup> (Water=1)  
 Vapor Density: 7 (Air=1) Molecular Formula: Hg  
 Evaporation Rate: Not available. Molecular Weight: 200.59  
 Viscosity: 1.554 cP 20.00

**\*\*\*\* SECTION 10 – STABILITY AND REACTIVITY\*\*\*\***

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** High temperatures, incompatible materials, metals.

**Incompatibilities:** Acetylene, ammonia, boron phosphodiiodide, chlorine, chlorine dioxide, methyl azide, sodium carbide, halogens, strong oxidizers.

**Hazardous Decomposition Products:** Mercury/mercury oxides.

**Hazardous Polymerization:** Has not been reported.

\*\*\*\* SECTION 11 – TOXICOLOGICAL INFORMATION \*\*\*\*

**RTECS#:** CAS# 7439-97-6: OV4550000  
**LD50/LC50:** Not available.  
**Carcinogenicity:** MERCURY - ACGIH: as Hg: A4-not classifiable as a human carcinogen. IARC: Group 3 carcinogen (listed as MERCURY, ARYL AND INORGANIC)  
**Epidemiology:** No information available.  
**Teratogenicity:** Embryo or Fetus: Fetotoxicity, inhalation-rat TCLo= 1mg/m3/24H.  
**Reproductive Effects:** Fertility: Post-implantation mortality, inhalation- rat TCLo=7440ng/m3/24H. Paternal Effects: Spermatogenesis, inhalation-rat TCLo=890ng/m3/24H.  
**Neurotoxicity:** No information available.  
**Mutagenicity:** Please refer to RTECS# OV4550000 for specific information.  
**Other Studies:** None.

\*\*\*\* SECTION 12 – TRANSPORT INFORMATION \*\*\*\*

<b>US DOT:</b>	Shipping Name: MERCURY	<b>Dangerous Goods Code:</b>	8(66C)
	Hazard Class: 8		UN Number: 2809
	UN Number: UN2809		
	Packing Group: III	<b>Canadian TDG:</b>	Shipping Name: MERCURY
	ERG #: 172		Hazard Class: 8
	RQ Value: 1 pound		UN Number: UN2809

\*\*\*\* SECTION 13 – REGULATORY INFORMATION \*\*\*\*

**US FEDERAL:**

**TSCA:** CAS# 7439-97-6 is listed on the TSCA inventory.

Health & Safety Reporting List	None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules	None of the chemicals in this product are under a Chemical Test Rule.
Section 12b	None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule	None of the chemicals in this material have a SNUR under TSCA.

**SARA:**

Section 302 (RQ)	CAS# 7439-97-6: final RQ = 1 pound (0.454 kg)
Section 302 (TPQ)	None of the chemicals in this product have a TPQ.
SARA Codes	CAS # 7439-97-6: acute, chronic.
Section 313	This material contains MERCURY (CAS# 7439-97-6, 100%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

**Clean Air Act:** CAS# 7439-97-6 listed as MERCURY COMPOUNDS is listed as a hazardous air pollutant (HAP).  
 This material does not contain any Class 1 Ozone depleters.  
 This material does not contain any Class 2 Ozone depleters.

**Clean Water Act:** None of the chemicals in this product are listed as Hazardous Substances under the CWA.  
 CAS# 7439-97-6 is listed as a Priority Pollutant under the Clean Water Act.  
 CAS# 7439-97-6 is listed as a Toxic Pollutant under the Clean Water Act.

**OSHA:** None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE:** MERCURY can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

**WARNING:** This product contains MERCURY, a chemical known to the state of California to cause birth defects or other reproductive harm. California No Significant Risk Level: None of the chemicals in this product are listed.

**Canada:** CAS# 7439-97-6 is listed on Canada's DSL/NDL List. This product has a WHMIS classification of D2A, E.  
 CAS# 7439-97-6 is not listed on Canada's Ingredient Disclosure List.

\*\*\*\* Section 16 – Additional Information \*\*\*\*

**MSDS Creation Date:** June 14, 1998

**(Revision 1) Date:** March 31, 2002

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall Mercury Waste Solutions, Inc. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Mercury Waste Solutions, Inc. has been advised of the possibility of such damages.