

Material Safety Data Sheet
 May be used to comply with
 OSHA's Hazard Communication Standard,
 29 CFR 1910.1200. Standard must be
 consulted for specific requirements.

U.S. Department of Labor
 Occupational Safety and Health Administration
 (Non-Mandatory Form)
 Form Approved
 OMB No. 1218-0072



IDENTITY (As Used on Label and List) **METALLIC MERCURY**

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name
PRINCO INSTRUMENT INC
 Address (Number, Street, City, State, and ZIP Code)
1020 INDUSTRIAL BLVD.
SOUTHAMPTON, PA 18966-4095

Emergency Telephone Number **CHEM-TEL, INC.**
1-800-255-3924 (TNTL COLLECT 1-813-248-0585)
 Telephone Number for Information
215-355-1500
 Date Prepared
2/12/07
 Signature of Preparer (optional)

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity, Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Metallic Mercury CAS #:7439-97-6	0.05mg/m³	0.05mg/m³	NIOSH 10 hr TWA	0.05mg/m³
CERCLA Ratings (scale 0-4) Health=3 Fire=0 Reactivity=0 Persistence=0				
NEPA Ratings (scale 0-4) Health=3 Fire=0 Reactivity=0				

Synonyms: Colloidal mercury, Quicksilver, hydrargyrum, elemental mercury, RCRA 0151

Chemical Formula: **Hg**

Molecular Weight: **200.59g**

DOT Hazard Class: **8** DOT identification number: **UN2809**

subject to SARA Section 313 annual toxic release reporting

CERCLA Section 103 Reportable Quantity= **1 lb.**

Section III - Physical/Chemical Characteristics

Boiling Point 674 F (357 C)	Specific Gravity (H ₂ O = 1) 13.5939
Vapor Pressure (mm Hg.) 0.002 mm Hg @ 25 C	Melting Point -38 F (-39 C)
Vapor Density (AIR = 1) 7.0	Evaporation Rate (Butyl Acetate = 1) N/A

Solubility in Water
insoluble in water; soluble in boiling sulfuric acid, nitric acid, lipids

Appearance and Odor
odorless, silvery liquid with a metallic luster

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used) Inflammable	Flammable Limits N/A	LEL N/A	UEL N/A
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Extinguishing Media
small fire; dry chemical. CO₂ halon, water spray, or foam. Large fire: water spray, fog, or foam

Special Fire Fighting Procedures
move containers from area if possible; Cool containers exposed to flames with water from the side until fire is out; stay away from storage tank ends; stay upwind

Unusual Fire and Explosion Hazards
negligible fire hazard when exposed to heat or flame

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Section V — Reactivity Data

Stability	Unstable	Conditions to Avoid Elevated temperatures and open flames
	Stable XXX	stable under normal temperatures and pressures

Incompatibility (Materials to Avoid) Acetylenic compounds, aluminum, amines, ammonia, Boron, Bromine, Methyl Azide, Methylsilane	Oxidants, Lithium, Sodium, Potassium, Rubidium, Oxalic Acid, sodium carbide, tetracarbonylnickel, nitromethane, silver perchlorate, copper and alloys, chlorine dioxide, 3-bromopropyne
Hazardous Decomposition or Byproducts Toxic Vapors	
Hazardous Polymerization None	

Section VI — Health Hazard Data

Route(s) of Entry:	Inhalation? YES	Skin? YES	Ingestion? YES
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Health Hazards (Acute and Chronic)
See attachment

Carcinogenicity:	NTP? Mercury has not been identified as a suspected carcinogen by NTP,	IARC Monographs? IARC or OSHA	OSHA Regulated? OSHA
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Signs and Symptoms of Exposure
see attachment

Medical Conditions Generally Aggravated by Exposure
see attachment

Emergency and First Aid Procedures
see attachment

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled
see attachment

Waste Disposal Method
Scrap mercury can be reclaimed Disposal must be in accordance with 40 CFR 262 EPA hazardous waste #U151.

Precautions to Be Taken in Handling and Storage
Store away from incompatible materials. Store in plastic, glass, or steel containers with tight fitting seals. Store in an isolated, cool, well ventilated area.

Other Precautions

Section VIII — Control Measures

Respiratory Protection (Specify Type)
see attachment

Ventilation	Local Exhaust Provide local exhaust, process enclosure ventilation, or general dilution to meet permissible exposure limits
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Protective Gloves Use appropriate gloves to prevent skin contact	Eye Protection shield	Chemical safety goggles and full face
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Other Protective Clothing or Equipment
Appropriate impervious clothing & equipment to prevent skin contact

Hygiene Practices
Maintain eye wash and quick drench facility in work area. NO smoking, eating or drinking.

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SECTION VI - HEALTH HAZARD DATA**INHALATION**

ACUTE EXPOSURE - inhalation of high concentration of mercury vapor can cause almost immediate dyspnea, cough, fever, nausea, vomiting, diarrhea, stomatitis, salivation and metallic taste. The symptoms may resolve or may progress to necrotizing bronchiolitis, pneumonitis, pulmonary edema and pneumothorax. Intoxication symptoms are characterized by metallic taste, nausea, abdominal pain, vomiting, dizziness, clumsiness, slurred speech, diarrhea, headache and albuminuria.

CHRONIC EXPOSURE - inhalation of mercury vapor over a long period causes mercurialism. Findings are extremely variable and include tremors, salivation, stomatitis, loosening of the teeth, blue lines on the gums, pain and numbness in the extremities, nephritis, diarrhea, anxiety, headache, weight loss, anorexia, mental depression, insomnia, irritability, instability, hallucinations and evidence of mental deterioration.

FIRST AID - Remove from exposure area to fresh air immediately. If breathing has stopped, give artificial respiration. Maintain airway and blood pressure and administer oxygen if available. Keep affected person warm and at rest. Administration of oxygen should be performed by qualified personnel. Get medical attention immediately.

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 cause irritation and sensitization dermatitis. 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 this 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. fifteen to twenty minutes). Get medical attention immediately.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE OF MATERIAL IS RELEASED OR SPILLED

Isolate the area of the leak or spill. Wearing appropriate protective equipment attempt to stop 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 spill for later reclamation or disposal. Keep unnecessary people away. Isolate hazard area and deny entry.

SECTION VIII - Respiratory Protection

0.5 MG/M3 - Any chemical cartridge respirator with cartridges providing protection against mercury.
Any supplied-air respirator.
Any self-contained breathing apparatus.

1.25 MG/M3 - Any supplied air respirator operated in a continuous flow mode. Any powered air-purifying respirator with a canister providing protection against mercury.

2.5 MG/M3 - Any supplied air respirator with a full facepiece.
Any self-contained breathing apparatus with a full facepiece.

Any supplied-air respirator with a tight-fitting facepiece operated in a continuous flow mode.

Any chemical cartridge respirator with a full facepiece and cartridges providing protection against mercury.

Any air-purifying full facepiece respirator (gas mask) with a chin-style for front - or back-mounted canister providing protection against mercury.

Any powered air-purifying respirator with a tight-fitting facepiece and a canister providing protection against mercury.

28 MG/M3 - Any supplied air respirator with a half-mask and operated in a pressure-demand or other positive pressure mode.