



**MATERIAL SAFETY DATA SHEET
FOR
MERCURY-IN-GLASS THERMOMETER**

1 - PRODUCT IDENTIFICATION

PRODUCT NAME: MERCURY (METAL)
FORMULA: HG
FORMULA WT: 200.59
CAS NO.: 07439-97-6
NIOSH/RTECS NO.: OV4550000
COMMON SYNONYMS: QUICKSILVER; LIQUID SILVER
PRODUCT CODES: 2569,2567,2564,2572
EFFECTIVE: 09/05/02 REVISION #02

PRECAUTIONARY LABELLING

HEALTH - 3 EXTREME (POISON)
FLAMMABILITY - 0 NONE
REACTIVITY - 0 SLIGHT
CONTACT - 3 SEVERE (LIFE)

HAZARD RATINGS ARE 0 TO 4 (0 = NO HAZARD; 4 = EXTREME HAZARD).

LABORATORY PROTECTIVE EQUIPMENT: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES

PRECAUTIONARY LABEL STATEMENTS

THERMOMETER CONTAINS MERCURY. HAZARDOUS ONLY IF BROKEN

POISON DANGER

EXCEPTIONAL CONTACT HAZARD - READ MATERIAL SAFETY DATA SHEET

MAY BE FATAL IF SWALLOWED OR INHALED

EMITS TOXIC VAPORS, ESPECIALLY WHEN HEATED.

DO NOT GET IN EYES, ON SKIN, ON CLOTHING.

DO NOT BREATHE DUST. KEEP IN TIGHTLY CLOSED CONTAINER. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING.

2 - HAZARDOUS COMPONENTS

COMPONENT	%	CAS NO.
MERCURY (METAL)	90-100	7439-97-6

3 - PHYSICAL DATA

BOILING POINT: 357 C (675 F) VAPOR PRESSURE(MM HG): .002

MELTING POINT: -39 C (-38 F) VAPOR DENSITY(AIR=1): 1.01

MERCURY-IN-GLASS THERMOMETER

SPECIFIC GRAVITY: 13.53 EVAPORATION RATE: 4
(H2O=1) (BUTYL ACETATE=1)

SOLUBILITY(H2O): NEGLIGIBLE (LESS THAN 0.1 %) % VOLATILES BY VOLUME: 100

APPEARANCE & ODOR: SILVER-WHITE, HEAVY, MOBILE LIQUID METAL.

4 - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (CLOSED CUP) N/A

FLAMMABLE LIMITS: UPPER - N/A % LOWER - N/A %

FIRE EXTINGUISHING MEDIA
USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE.

SPECIAL FIRE-FIGHTING PROCEDURES
FIREFIGHTERS SHOULD WEAR PROPER PROTECTIVE EQUIPMENT AND SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN POSITIVE PRESSURE MODE.

5 - HEALTH HAZARD DATA

TLV LISTED DENOTES (TLV-SKIN).

THRESHOLD LIMIT VALUE (TLV/TWA): 0.05 MG/M3 (PPM)

PERMISSIBLE EXPOSURE LIMIT (PEL): 0.05 MG/M3 (PPM)

CARCINOGENICITY: NTP: NO IARC: NO Z LIST: NO OSHA REG: NO

EFFECTS OF OVEREXPOSURE
INHALATION OF VAPORS MAY CAUSE COUGHING, CHEST PAINS, NAUSEA AND VOMITING.
CHRONIC EFFECTS OF OVEREXPOSURE MAY INCLUDE KIDNEY AND/OR LIVER DAMAGE.
CHRONIC EFFECTS OF OVEREXPOSURE MAY INCLUDE CENTRAL NERVOUS SYSTEM DEPRESSION.
CHRONIC EFFECTS OF MERCURY POISONING INCLUDE A BUILDUP OF THE METAL IN THE BRAIN, LIVER AND KIDNEYS. SYMPTOMS INCLUDE HEADACHE, TREMORS, LOOSE TEETH, LOSS OF APPETITE, BLISTERS ON THE SKIN AND IMPAIRED MEMORY.

TARGET ORGANS
EYES, SKIN, RESPIRATORY SYSTEM, CENTRAL NERVOUS SYSTEM, KIDNEYS

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE
NONE IDENTIFIED

ROUTES OF ENTRY
INHALATION, ABSORPTION, EYE CONTACT, SKIN CONTACT
EMERGENCY AND FIRST AID PROCEDURES
CALL A PHYSICIAN.

MERCURY-IN-GLASS THERMOMETER

IF SWALLOWED, IF CONSCIOUS, IMMEDIATELY INDUCE VOMITING. IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. WASH CLOTHING BEFORE RE-USE.

PEL LISTED DENOTES CEILING LIMIT.

6 - REACTIVITY DATA

STABILITY: STABLE HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID: HEAT

INCOMPATIBLES: STRONG ACIDS

7 - SPILL AND DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN THE EVENT OF A SPILL OR DISCHARGE WEAR SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING. CLEAN UP SPILL IMMEDIATELY. COLLECT AND STORE USING A SUCTION PUMP WITH A CAPILLARY TUBE. CALCIUM POLYSULFIDE WITH EXCESS SULFUR SHOULD BE SPRINKLED INTO CRACKS OR INACCESSIBLE SITES. KEEP COLLECTED MERCURY IN A TIGHTLY CLOSED BOTTLE FOR RECOVERY OR DISPOSAL.

J.T. BAKER CINNASORB(R) AND RESISORB(R) ARE RECOMMENDED FOR SPILLS OF THIS PRODUCT.

DISPOSAL PROCEDURE
DISPOSE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS.

EPA HAZARDOUS WASTE NUMBER: U151 (TOXIC WASTE)

8 - PROTECTIVE EQUIPMENT

VENTILATION: USE GENERAL OR LOCAL EXHAUST VENTILATION TO MEET TLV REQUIREMENTS.

RESPIRATORY PROTECTION: NONE REQUIRED WHERE APPROPRIATE VENTILATION CONDITIONS EXIST. IF THE TLV IS EXCEEDED, A SELF-CONTAINED BREATHING APPARATUS IS ADVISED.

EYE/SKIN PROTECTION: SAFETY GOGGLES AND FACE SHIELD, UNIFORM, PROTECTIVE SUIT, RUBBER GLOVES ARE RECOMMENDED.

MERCURY-IN-GLASS THERMOMETER

9 - STORAGE AND HANDLING PRECAUTIONS

SPECIAL PRECAUTIONS:
KEEP CONTAINER TIGHTLY CLOSED. STORE IN SECURE POISON AREA.

10 - TRANSPORTATION DATA AND ADDITIONAL INFORMATION

DOMESTIC (D.O.T.)

PROPER SHIPPING NAME MERCURY, CONTAINED IN MANUFACTURED ARTICLES
HAZARD CLASS ORM-B
UN/NA NA2809
LABELS NONE
REPORTABLE QUANTITY 1 LBS.

INTERNATIONAL (I.M.O.)

PROPER SHIPPING NAME MERCURY, CONTAINED IN MANUFACTURED ARTICLES
HAZARD CLASS 8
UN/NA UN2809
LABELS CORROSIVE

Palmer Instruments, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. PALMER INSTRUMENTS, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, PALMER INSTRUMENTS, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.

PALMER INSTRUMENTS, INC. (ph) 828-658-3131 (fax) 828-658-0728