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### MATERIAL SAFETY DATA SHEET

|                                       |  |  |                |
|---------------------------------------|--|--|----------------|
| ENTERED OCT 10 1986                   |  | SECTION I                              | CAS# 7439-97-6 |
| CHEMICAL NAME AND SYNONYMS<br>Mercury |  | TRADE NAME AND SYNONYMS<br>Quicksilver |                |
| CHEMICAL FAMILY<br>Element            |  | FORMULA                                | Hg             |

| SECTION II—HAZARDOUS INGREDIENTS                      |   |             |  |
|---|---|-------------|--|
| PAINTS, PRESERVATIVES, & SOLVENTS                     | % | TLV (Units) | ALLOYS AND METALLIC COATINGS           |
| PIGMENTS  |   |             | BASE METAL                             |
| CATALYST  |   |             | ALLOYS                                 |
| VEHICLE   |   |             | METALLIC COATINGS                      |
| SOLVENTS  |   |             | FILLER METAL PLUS COATING OR CORE FLUX |
| ADDITIVES   |   |             | OTHERS                                 |
| OTHERS  |   |             |  |
| HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES |   |             | TLV (Units)                            |
| Single Compound- Does not apply                       |   |             |  |

| SECTION III—PHYSICAL DATA         |                          |   |           |
|-----------------------------------|--------------------------|---|-----------|
| BOILING POINT (°F) °C             | 356-357                  | SPECIFIC GRAVITY (H <sub>2</sub> O = 1) | 13.546    |
| VAPOR PRESSURE (mm Hg.) (25°C)    | 2x10 <sup>-3</sup>       | PERCENT VOLATILE BY VOLUME (%) @ 360°C  | 100       |
| VAPOR DENSITY (AIR = 1)           |                          | EVAPORATION RATE ( = 1) (25°C)          | very slow |
| SOLUBILITY IN WATER M moles/liter | 0.28                     |   |           |
| APPEARANCE AND ODOR               | Silvery Liquid, odorless |   |           |

| SECTION IV—FIRE AND EXPLOSION HAZARD DATA |  |                  |         |
|---|--|------------------|---------|
| FLASH POINT (Method used)                 | N/A  | FLAMMABLE LIMITS | Lel Uel |
| EXTINGUISHING MEDIA                       | Suitable to extinguish the supporting fire   |                  |         |
| SPECIAL FIRE FIGHTING PROCEDURES          | Wear self-contained breathing apparatus.   |                  |         |
| UNUSUAL FIRE AND EXPLOSION HAZARDS        | Heat from a fire can vaporize mercury and generate a toxic mercury concentration in air. |                  |         |

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| SECTION V—HEALTH HAZARD DATA       |   |
|------------------------------------|---|
| THRESHOLD LIMIT VALUE              | TWA 50 Mg/m <sup>3</sup> ; STEL 150 Mg/m <sup>3</sup>   |
| EFFECTS OF OVEREXPOSURE            | Inflammation of mouth and gums, excessive salivation, loosening of teeth, kidney damage, muscle tremors, personality changes.   |
| EMERGENCY AND FIRST AID PROCEDURES | Inhalation: remove to fresh air. Get medical attention. Eyes, skin: Wash immediately and thoroughly with water and/or soap. Ingestion: Induce vomiting and consult a physician. |

| SECTION VI—REACTIVITY DATA  |                |   |                     |
|---|----------------|---|---------------------|
| STABILITY   | UNSTABLE       |   | CONDITIONS TO AVOID |
|   | STABLE         | X |                     |
| INCOMPATIBILITY (Materials to avoid)<br>Most metals (forms Amalgams); acids forms soluble mercury salts (severe poisons). |                |   |                     |
| HAZARDOUS DECOMPOSITION PRODUCTS<br>Toxic mercury vapor when heated   |                |   |                     |
| HAZARDOUS POLYMERIZATION  | MAY OCCUR      |   | CONDITIONS TO AVOID |
|   | WILL NOT OCCUR | X |                     |

| SECTION VII—SPILL OR LEAK PROCEDURES                      |   |
|---|---|
| STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED | Ventilate the area well, sweep up promptly using a special vacuum cleaner designed for this purpose or use sulfur bearing sweeping compound. Store in a tightly closed container. |
| WASTE DISPOSAL METHOD                                     | In accordance with current local, state and federal regulations dispose of in a hazardous waste disposal facility. For larger quantities, return to a mercury refiner or smelter. |

| SECTION VIII—SPECIAL PROTECTION INFORMATION   |                      |  |                         |
|---|----------------------|--|-------------------------|
| RESPIRATORY PROTECTION (Specify type)<br>NIOSH approved for mercury dusts and fumes |                      |  |                         |
| VENTILATION   | LOCAL EXHAUST        | To provide air change every 3-5 minutes. | SPECIAL                 |
|   | MECHANICAL (General) |  | OTHER                   |
| PROTECTIVE GLOVES   | Rubber               | EYE PROTECTION                           | Chemical splash goggles |
| OTHER PROTECTIVE EQUIPMENT  |                      |  |                         |

| SECTION IX—SPECIAL PRECAUTIONS                  |   |
|---|---|
| PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING | Avoid skin contact, do not breath vapors.   |
| OTHER PRECAUTIONS                               | Spilled mercury can remain in small floor cracks, under benches etc. to provide a vapor source. |