

**Material Safety Data Sheet**

Impact Test Equipment Ltd  
[www.impact-test.co.uk](http://www.impact-test.co.uk) & [www.impact-test.com](http://www.impact-test.com)

**Impact Test Equipment Ltd.  
Building 21 Stevenston Ind. Est.  
Stevenston  
Ayrshire  
KA20 3LR**

T: 01294 602626

F: 01294 461168

E: [sales@impact-test.co.uk](mailto:sales@impact-test.co.uk)

Test Equipment Web Site

[www.impact-test.co.uk](http://www.impact-test.co.uk)

Test Sieves & Accessories Web Site

[www.impact-test.com](http://www.impact-test.com)

## **CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH FOR MERCURY METAL**

This Material Safety Data Sheet has been prepared to comply with the EC Directive Hazard Communication Regulations.

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

Product Name: Mercury Thermometer

MSDS Number: 99-0094 - MSDS Date of Preparation/Revision: 26/09/2013

### **SECTION 2: COMPOSITION/ INFORMATION INGREDIENTS**

Chemical Name: Mercury metal

CAS number: 7439-97-6

EINECS: 231-106-7

### **SECTION 3: HAZARDS IDENTIFICATION**

Odourless, 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 vapour's 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. Wash 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 : Use any suitable media for surrounding the fire conditions.

Special Fire Fighting Procedures: Fire fighters 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 vaporise when heated, creating toxic fumes. Thermometers may shatter at high temperatures.

Hazardous Combustion Products: May emit mercury vapours.

**IN AN EMERGENCY – NOTIFY POLICE & FIRE BRIGADE IMMEDIATELY**

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

Personal Protection - Wear eye protection, gloves and protective clothing

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

## **SECTION 7: HANDLING AND STORAGE**

Work Practices: Avoid eye and skin contact. Avoid breathing vapours. Wash thoroughly after contact. Spilled mercury gives off odourless toxic vapours. 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 containers may be hazardous when empty since they retain mercury residues. Observe all warnings and precautions for the product.

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

Personal Protection – Wear eye protection, gloves and protective clothing

Exposure Limits - 0.025 mg/m<sup>3</sup> TWA

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance and Odour: Odourless, very heavy silvery grey liquid metal contained in a glass thermometer.

Chemical formula: Hg

Solubility: Insoluble in water

Boiling point/Range °C: 357

Melting point/Range °C: -39

Vapour Pressure: 1mm 126°C

Relative Density: 13.6

## **SECTION 10: STABILITY AND REACTIVITY**

Stability: Stable

Conditions to Avoid: High temperatures.

Hazardous Decomposition Products: At high temperatures, mercury vaporises to form highly toxic mercury vapours.

## **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: Vapours 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.

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

## **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**

Consult your local authority / disposal contactor, Mercury containers are classified as special waste under the terms of pollution (special waste) regulations 1980 and should be disposed of an approved manner

## **SECTION 14: TRANSPORTATION DATA**

DOT Shipping Name: Mercury, Contained In Manufactured Article

DOT Hazard Class: 8 Subsidiary Risk 6.1, PG III

UN Number: UN3506

DOT Labels Required (49CFR172.101): Corrosive

Hazardous Substance (49CFR172.101): Mercury

Reportable Quantity: 1 pound

## **SECTION 15: OTHER REGULATORY INFORMATION**

Classification: Toxic

Risk phase: R23: Toxic by inhalation

R33: Danger of cumulative effects

Safety phrases: S1/2: Keep locked up and out of reach of children

S7: Keep container tightly closed

S45: In case of accident or if you feel unwell seek medical advice immediately

(Show label where possible)

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.

## **SECTION 16: OTHER INFORMATION**

Date of Latest MSDS Revision: 26/09/2013

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 Charnwood instrumentation Services Ltd it is the user's obligation to assure safe use of this product.