



HEALTH	3
FLAMMABLE	0
REACTIVITY	0

MATERIAL SAFETY DATASHEET

1. Identification of the product and of the manufacturing company MERCURY CONTAINED IN MANUFACTURED ARTICLES

Identification of the product

Mercury wetted reed relays types : MSS2, MSS4, MSS6, MSS7 series GMSS2, GMSS4, GMSS6, GMSS7 series MVS2, MVS4, MVS6, MVS7 series GMVS2, GMVS4, GMVS6, GMVS7 series HGZM, MHCE, CUP, MHMG series GRMA 20000 series 2420, 2920 series 72XX series 3520, 3582, 3585 series 3880, 3885 series 1200 series (1203 – 0138)	Mercury wetted sensors types: FO, FAA series ELO series	Mercury wetted switches types: HG HGW HGZ MH4 MH5
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Manufacturer/Supplier identification

Company: **Coto Technology Inc.**; 66 whitecap drive, North Kingstown, RI, 02852 USA.
 Telephone: +1 (401) 943 2686

2. Composition/information on ingredients

Chemical characterization
 Metallic element : Mercury
 CAS number : 7439-97-6

3. Hazards identification

Toxic by inhalation. Danger of cumulative effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. First aid measures

Eye contact: Irrigate thoroughly with water. If discomfort persists, obtain medical attention.
 Inhalation: Remove from exposure.
 Skin contact: Wash off thoroughly with soap and water.
 Ingestion: Wash out mouth thoroughly with water. In severe cases obtain medical attention.

5. Fire-fighting measures

Special risks:

Not combustible. May evolve toxic fumes in fire.

Suitable extinguishing media:

To suit environment.

Wear chemical protection suit and respiratory protective equipment immediately. Prevent fire fighting water entering watercourses or ground-water.



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6. Accidental release measures

Wear appropriate protective clothing. Inform others to keep at a safe distance. As mercury vapor is highly toxic it is essential that spillages should be cleared up as thoroughly as possible. Use an aspirator bottle with a capillary nozzle and connected to a pump to collect droplets. Treat material spilt into floor cracks with zinc dust to form an amalgam. For large spillages liquids should be contained with sand or earth and both liquids and solids transferred to salvage containers. Any residues should be treated as for small spillages.

7. Handling and storage

Handling:

Under no circumstances eat or drink at workplace. Wear appropriate protective clothing. Work under fume extractor. Do not inhale substance. Change contaminated clothing. Wash hands after working with substance. Do not empty into drains, dispose of this material and its container in a safe way. Unsuitable working materials: various metals.

Storage:

Store at room temperature (15 to 25°C recommended). Keep well closed and protected from direct sunlight and moisture.

8. Exposure controls/personal protection

As appropriate to the situation and the quantity handled. Engineering methods to control or prevent exposure are preferred. Methods could include process enclosure or mechanical ventilation.

Respirator: Self-contained breathing apparatus

Ventilation: Fume cupboard

Gloves: Rubber or plastic

Eye Protection: Goggles or face-shield

Other Precautions: Plastic apron, sleeves, boots - if handling large quantities

9. Physical and chemical properties

Form: liquid
Color: silvery
Odor: odorless
Melting temperature -39°C
Boiling temperature 357°C
Density(g/ml) 13.6
Vapor pressure 1mmHg, 126°C
Solubility in water Immiscible or insoluble
Flash point Not applicable

10. Stability and reactivity

Stable.

Substances to be avoided

acetylidene, ammonia, amines, alkali metals, Methyl azide, metals, halogens, carbides, halogen oxides.



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Hazardous decomposition products: highly toxic vapors.

11. Toxicological information

Very toxic by inhalation.
After skin contact: Risk of sensitization.

Health Haz Acute And Chronic:
target organs : cns, liver, kidney.

Acute: if switches are broken, inhalation of high concentrations of mercury vapor can cause severe respiratory irritation. May be fatal. May cause kidney, liver & central nervous system damage.

Chronic: can result in gum & mouth inflammation, liver, kidney & cns damage.

Carcinogenicity - NTP: NO
Carcinogenicity - IARC: NO
Carcinogenicity - OSHA: NO
Explanation Carcinogenicity: NONE
Signs/Symptoms Of Overexpose:
severe irritation, chest pain, breathing difficulties, pain, headache, gum and mouth inflammation, death

Med Cond Aggravated By Exp:
individuals with pre-existing diseases of the eye, skin, respiratory tract, liver, kidneys, cns may have increased susceptibility to the toxicity of excessive exposures.

12. Ecological information

Bioaccumulation potential: high (Log Pow >4). BCF: 63,000
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Daphnia toxicity: EC50 (Daphnia): 0.0052 mg/l/48h
Fish toxicity: LC50 (I.punctatus): 35 mg/l/96h
The following applies to inorganic Hg compounds in general: biological effects: fish:
Salmon lethal from 0.05 ppm up; P. promelas LC50: 0.19 mg/l; Hg ions toxic: fish: L. idus LC50: 0.013 mg/l; algae: Sc. quadricauda toxic from 0.07 mg/l up; M. aeruginosa toxic from 0.005 mg/l up; hazard for drinking water.

13. Disposal considerations

Chemical residues are generally classified as special waste, and as such are covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a chemical disposal company. Rinse out empty containers thoroughly before returning for recycling.



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14. Transport information

UN-No.: 2809 IMDG class: 8
IMO: 8/2809 Packaging group: III
IATA: 2809 Packaging group: III

Correct technical name: MERCURY CONTAINED IN MANUFACTURED ARTICLES
ADR/RID: 8, 66'(c)

15. Regulatory information

labeling according to EC directives
Symbol: T N Toxic. Dangerous for the environment.

R-phrases: R23-33-50/53
Toxic by inhalation. Danger of cumulative effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases: S7-45-60-61
Keep container tightly closed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/Safety data sheets.
EC-No.: 231-106-7

16. Other information

Revision A
Reason for alteration: Add new product series, change manufacturer name.
Date of issue: 3/04/2011