

MATERIAL SAFETY DATA SHEET

Product Name: Mercury

CAS No.: 7439-97-6

Version: 0

1. Identification

Product Code : 90187,90459
Company Name : Advent Chembio Private Limited
Address : W-288, MIDC, TTC INDUSTRIAL AREA, THANE-BELAPUR ROAD, RABALE, NAVI MUMBAI - 400 701.
E-mail : info@adventchembio.com
WEBSITE : www.adventchembio.com
Company Phone Number : 022-27690837

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
MERCURY	7439-97-6	90-100%

3. Hazards Identification**Hazard classification****Health hazards**

Acute toxicity (Inhalation - vapor) : Category 2

Toxic to reproduction : Category 1

Environmental Hazards

Acute hazards to the aquatic environment : Category 1

Chronic hazards to the aquatic environment : Category 1

Labels elements**Hazard symbol****Signal word****Hazard statement**

- : Danger
: May damage fertility or the unborn child.
Fatal if inhaled.
Very toxic to aquatic life with long lasting effects.
Causes damage to organs through prolonged or repeated exposure.

Precautionary statement**Prevention**

- : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wear respiratory protection. Avoid release to

MATERIAL SAFETY DATA SHEET**Product Name:** Mercury**CAS No.:** 7439-97-6**Version:** 0

- the environment. Wash hands thoroughly after handling.
- Response** : IF exposed or concerned: Get medical advice/attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
- Storage** : Store in a well-ventilated place. Keep cool. Store locked up. Keep cool.
- Disposal** : Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
- Other hazards which do not result in GHS classification** : None.

4. First Aid Measures

- General information** : Get medical advice/attention if you feel unwell. If medical advice is needed, have product container or label at hand. Show this safety data sheet to the doctor in attendance.
- Ingestion** : Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
- Inhalation** : Move to fresh air. Call a physician or poison control center immediately. If breathing stops, provide artificial respiration.
- Skin contact** : Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician or poison control center immediately. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.
- Eye contact** : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention immediately.
- Most important symptoms/effects, acute and delayed** : Fatal if inhaled. Irritating to eyes, respiratory system and skin.
- Indication of immediate medical attention and special treatment needed** : Treat symptomatically. Symptoms may be delayed.

MATERIAL SAFETY DATA SHEET

Product Name: Mercury

CAS No.: 7439-97-6

Version: 0

5. Fire fighting measures

- General fire hazards** : In case of fire and/or explosion do not breathe fumes.
- Suitable (and unsuitable) extinguishing media**
- Suitable extinguishing media** : Use fire-extinguishing media appropriate for surrounding materials.
- Unsuitable extinguishing media** : None known
- Specific hazards arising from the chemical** : Fire may produce irritating, corrosive and/or toxic gases.
- Special protective equipment and precautions for firefighters**
- Special fire fighting procedures** : Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out.
- Special protective equipment for fire-fighters** : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental Release Measures

- Personal precautions, protective equipment and emergency procedures** : Keep unauthorized personnel away. Use personal protective equipment. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Methods and material for containment and cleaning up** : Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal .
- Notification Procedures** : Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. Inform authorities if large amounts are involved.
- Environmental precautions** : Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

MATERIAL SAFETY DATA SHEET

Product Name: Mercury

CAS No.: 7439-97-6

Version: 0

7. Handling and Storage

- Precautions for safe handling** : Use personal protective equipment as required. Do not breathe mist or vapor. Do not taste or swallow. Do not eat, drink or smoke when using the product. Use only with adequate ventilation. Wash hands thoroughly after handling. Avoid contact with eyes. Avoid contact with skin. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
- Conditions for safe storage, including any incompatibilities** : Keep in a cool, well-ventilated place. Store in a dry place. Store locked up. Keep container tightly closed.

8. Exposure Controls Personal Protection

Control parameters
Occupational exposure limits

Chemical Identity	Type	Exposure Limit Values	Source
MERCURY - as Hg	TWA	0.025 mg/m ³	US. ACGIH Threshold Limit Values (03 2013)
MERCURY - Vapor. - as Hg	REL	0.05 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	TWA	0.05 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
MERCURY	Ceiling	0.1 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
MERCURY (Total inorganic mercury: Sampling time: Prior to shift.)	20 µg/g (Creatinine in urine)	ACGIH BEL (02 2013)

Appropriate engineering controls : No data available.

Individual protection measures, such as personal protective equipment

General information : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

Eye/face protection : Wear safety glasses with side shields (or goggles).

MATERIAL SAFETY DATA SHEET**Product Name:** Mercury**CAS No.:** 7439-97-6**Version:** 0

Hand protection : Chemical resistant gloves.
Other : Wear suitable protective clothing.
Respiratory protection : In case of inadequate ventilation use suitable respirator.
Hygiene measures : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower.

9. Physical and Chemical Properties

Appearance : Silver liquid.
Odor : Odorless
pH : No data available.
Melting point/freezing point : -38.87 °C
Initial boiling point and boiling range : 356.73 °C
Flash Point : Not applicable
Vapor pressure : < 0.01 kPa (25 °C)
Vapor density : 7.0 AIR=1
Relative density : 13.55 (20 °C)
Solubility in water : Insoluble in water
Solubility (other) : No data available.
Formula : Hg
Molecular Weight : 200.59 g/mol

10. Stability and Reactivity

Reactivity : No dangerous reaction known under conditions of normal use.
Chemical stability : Material is stable under normal conditions.
Possibility of hazardous reactions : Hazardous polymerization does not occur.
Conditions to avoid : Heat, sparks, flames. Contact with incompatible materials.
Incompatible materials : Strong oxidizing agents. Acetylene. Ammonia. Ethylene Oxide
Chlorinated compounds. Metals. Strong oxidizers.
Hazardous decomposition products : Toxic metal fumes may form when heated to decomposition.

11. Toxicological Information**Information on likely routes of exposure**

Ingestion : Harmful if swallowed.
Inhalation : Fatal if inhaled.
Skin contact : Causes skin irritation.
Eye contact : Causes eye damage.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

Oral Product : No data available.

MATERIAL SAFETY DATA SHEET

Product Name: Mercury

CAS No.: 7439-97-6

Version: 0

Dermal Product	:	No data available.
Inhalation Product	:	No data available.
Repeated dose toxicity Product	:	No data available.
Skin corrosion/irritation Product	:	Causes skin irritation.
Serious eye damage/eye irritation Product	:	Causes eye irritation.
Respiratory or skin sensitization Product	:	Not a skin sensitizer.
Carcinogenicity Product	:	This substance has no evidence of carcinogenic properties.
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans DIOXANE	:	No carcinogenic components identified
US. National Toxicology Program (NTP) Report on Carcinogens DIOXANE	:	No carcinogenic components identified
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050	:	No carcinogenic components identified.
Germ cell mutagenicity In vitro Product	:	No mutagenic components identified
In vivo Product	:	No mutagenic components identified
Reproductive toxicity Product	:	May damage fertility or the unborn child.
Specific target organ toxicity - single exposure Product	:	No data available.
Specific target organ toxicity - repeated exposure Product	:	No data available
Aspiration hazard Product	:	Causes damage to organs through prolonged or repeated exposure.
Other effects	:	None known.

12. Ecological Information

Ecotoxicity

Acute hazards to the aquatic environment :

Fish Product	:	No data available.
Specified substance(s): MERCURY	:	LC 50 (Medaka, high-eyes (<i>Oryzias latipes</i>), 72 h): 1.4 mg/l Mortality
		LC 50 (Nile tilapia (<i>Tilapia nilotica</i>), 72 h): 3.71 mg/l Mortality
		LC 50 (Snake-head catfish (<i>Channa striata</i>), 72 h): 6.148 mg/l Mortality
		LC 50 (Snake-head catfish (<i>Channa striata</i>), 90 d): 1.571 mg/l Mortality
		LC 50 (Snake-head catfish (<i>Channa striata</i>), 90 d): 6.355 mg/l Mortality
Aquatic invertebrates Product	:	No data available.
Specified substance(s): MERCURY	:	LC 50 (Freshwater prawn (<i>Caridina rajadhari</i>), 24 h): 0.00912

MATERIAL SAFETY DATA SHEET

Product Name: Mercury

CAS No.: 7439-97-6

Version: 0

mg/l Mortality
 LC 50 (Calanoid copepod (Acartia tonsa), 24 h): 0.0175 mg/l
 Mortality
 LC 50 (Calanoid copepod (Acartia tonsa), 24 h): 0.02 mg/l
 Mortality
 LC 50 (Calanoid copepod (Acartia tonsa), 24 h): 0.022 mg/l
 Mortality
 LC 50 (Rotifer (Brachionus calyciflorus), 24 h): 0.054 - 0.066
 mg/l Mortality

Chronic hazards to the aquatic environment :

- Fish Product** : No data available.
- Aquatic invertebrates Product** : No data available.
- Toxicity to Aquatic Plants Product:** : No data available.
- Persistence and degradability**
- Biodegradation Product** : The product is not expected to be biodegradable.
- BOD/COD ratio Product** : No data available.
- Bioaccumulative potential**
- Bioconcentration factor (BCF) Product** : No data available on bioaccumulation.
- Partition coefficient n-octanol / water (log Kow) Product** : No data available.
- Mobility in soil** : The product is water soluble and may spread in water systems.
- Other adverse effects** : Very toxic to aquatic life with long lasting effects.

13. Disposal consideration

- Disposal instructions** : Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
- Contaminated packaging** : Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport Information

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
DOT	UN 2809	Mercury	8, 6.1	III	No
IMDG	UN 2809	Mercury	8, 6.1	III	No
IATA	UN 2809	Mercury	8, 6.1	III	No

MATERIAL SAFETY DATA SHEET

Product Name: Mercury

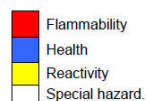
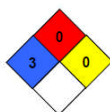
CAS No.: 7439-97-6

Version: 0

15. Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture
No Data Available.

16. Other Information**NFPA Hazard ID**

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

Issue Date :01/08/2014**Version : 0**

Disclaimer: This Material Safety Data Sheet (MSDS) is for guidance and is based upon information and tests believed to be reliable. ADVENT CHEMBIO PRIVATE LIMITED makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the technical instructor in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of ADVENT CHEMBIO PRIVATE LIMITED and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).