

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/04/2017

Reviewed on 12/04/2017

1 Identification

- **Product identifier**
- **Trade name:** Mercury, Prime
- **Article number:** M2010
- **CAS Number:**
7439-97-6
- **EC number:**
231-106-7
- **Index number:**
080-001-00-0
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Aqua Solutions, Inc.
6913 Highway 225
DEER PARK, TX 77536
USA
800-256-2586
- **Information department:**
Technical Coordinator
Sherman Nelson sherman@aquasolutions.org
- **Emergency telephone number:**
Chemtrec: 800-424-9300
Canutec: 613-996-6666



2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS06 Skull and crossbones

Acute Tox. 2 H330 Fatal if inhaled.



GHS08 Health hazard

Repr. 1B H360 May damage fertility or the unborn child.

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.

- **Label elements**

- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS06



GHS08

- **Signal word** *Danger*

- **Hazard statements**

Fatal if inhaled.

May damage fertility or the unborn child.

Causes damage to organs through prolonged or repeated exposure.

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- **Precautionary statements**

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe dust/fume/gas/mist/vapors/spray.
- Wash thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves/protective clothing/eye protection/face protection.
- [In case of inadequate ventilation] wear respiratory protection.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- IF exposed or concerned: Get medical advice/attention.
- Immediately call a poison center/doctor.
- Get medical advice/attention if you feel unwell.
- Specific treatment is urgent (see on this label).
- Store in a well-ventilated place. Keep container tightly closed.
- Store locked up.
- Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**

- **CAS No. Description**

7439-97-6 Mercury

- **Identification number(s)**

- **EC number:** 231-106-7

- **Index number:** 080-001-00-0

4 First-aid measures

- **Description of first aid measures**

- **General information:**

- Immediately remove any clothing soiled by the product.
- Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- Remove breathing apparatus only after contaminated clothing have been completely removed.
- In case of irregular breathing or respiratory arrest provide artificial respiration.

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- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Mount respiratory protective device.
- **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**
- **PAC-1:** 0.15 mg/m³
- **PAC-2:** 1.7 mg/m³
- **PAC-3:** 8.9 mg/m³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.

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- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

CAS: 7439-97-6 Mercury

PEL Long-term value: 0.1 mg/m³
as Hg; see OSHA standard interpretation memo

REL Long-term value: 0.05* mg/m³
Ceiling limit value: 0.1 mg/m³
as Hg; *Vapor; Skin

TLV Long-term value: 0.025 mg/m³
as Hg; Skin; BEI

· **Ingredients with biological limit values:**

CAS: 7439-97-6 Mercury

BEI 35 µg/g creatinine
LD50 Intraperitoneal: urine
Time: prior to shift
LD50: Total inorganic mercury (background)

15 µg/L
LD50 Intraperitoneal: blood
Time: end of shift at end of workweek
LD50: Total inorganic mercury (background)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Store protective clothing separately.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Protective work clothing

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Liquid
Color: Silver-colored

- **Odor:** Odorless

- **Odor threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range: -38.86 °C (-37.9 °F)
Boiling point/Boiling range: 356.73 °C (674.1 °F)

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:**

Decomposition temperature: Not determined.

- **Auto igniting:** Not determined.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**

Lower: Not determined.
Upper: Not determined.

- **Vapor pressure at 20 °C (68 °F):** 0.00163 hPa (0 mm Hg)

- **Density at 20 °C (68 °F):** 13.54 g/cm³ (112.9913 lbs/gal)

- **Relative density** Not determined.

- **Vapor density** Not determined.

- **Evaporation rate** Not determined.

- **Solubility in / Miscibility with**

Water: Fully miscible.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

Dynamic: Not determined.

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- | | |
|--------------------------|--|
| Kinematic: | Not determined. |
| Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**

Inhalative	LC50/4 h	≤2-<27 mg/l (rat)
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- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer) 3**
- **NTP (National Toxicology Program) Substance is not listed.**
- **OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.**

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
- Water hazard class 3 (Assessment by list): extremely hazardous for water
- Do not allow product to reach ground water, water course or sewage system, even in small quantities.
- Danger to drinking water if even extremely small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

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13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· **UN-Number**
· **DOT, IMDG, IATA** UN2809

· **UN proper shipping name**
· **DOT** Mercury
· **IMDG, IATA** MERCURY

· **Transport hazard class(es)**

· **DOT**



· **Class** 8 Corrosive substances
· **Label** 8, 6.1

· **IMDG**



· **Class** 8 Corrosive substances
· **Label** 8/6.1

· **IATA**



· **Class** 8 Corrosive substances
· **Label** 8 (6.1)

· **Packing group**
· **DOT, IMDG, IATA** III

· **Environmental hazards:** Environmentally hazardous substance, liquid
· **Marine pollutant:** No

· **Special precautions for user** Warning: Corrosive substances
· **Danger code (Kemler):** 80
· **EMS Number:** F-A,S-B

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· Segregation groups	Heavy metals and their salts (including their organometallic compounds), mercury and mercury compounds
· Stowage Category	B
· Stowage Code	SW2 Clear of living quarters.
· Segregation Code	SG24 Stow "away from" azides
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 35 kg On cargo aircraft only: 35 kg
· Hazardous substance:	1 lbs, 0.454 kg
· IMDG	
· Limited quantities (LQ)	5 kg
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 2809 MERCURY, 8 (6.1), III

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
- **Section 355 (extremely hazardous substances):** Substance is not listed.
- **Section 313 (Specific toxic chemical listings):** Substance is listed.

- **TSCA (Toxic Substances Control Act):**

Mercury

- **Proposition 65**
- **Chemicals known to cause cancer:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
- **Chemicals known to cause developmental toxicity:** Substance is listed.
- **Carcinogenic categories**
- **EPA (Environmental Protection Agency) D**
- **TLV (Threshold Limit Value established by ACGIH) A4**
- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.
- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS06 GHS08

- **Signal word** Danger
- **Hazard statements**
Fatal if inhaled.
May damage fertility or the unborn child.
Causes damage to organs through prolonged or repeated exposure.

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· **Precautionary statements**

- Obtain special instructions before use.
 - Do not handle until all safety precautions have been read and understood.
 - Do not breathe dust/fume/gas/mist/vapors/spray.
 - Wash thoroughly after handling.
 - Do not eat, drink or smoke when using this product.
 - Use only outdoors or in a well-ventilated area.
 - Wear protective gloves/protective clothing/eye protection/face protection.
 - [In case of inadequate ventilation] wear respiratory protection.
 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 - IF exposed or concerned: Get medical advice/attention.
 - Immediately call a poison center/doctor.
 - Get medical advice/attention if you feel unwell.
 - Specific treatment is urgent (see on this label).
 - Store in a well-ventilated place. Keep container tightly closed.
 - Store locked up.
 - Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Environment protection department.

· **Contact:**

· **Date of preparation / last revision**

12-04-2017: review SDS for accuracy. STN

Creation date for SDS 02-19-2014. STN

12/04/2017 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Acute Tox. 2: Acute toxicity – Category 2

Repr. 1B: Reproductive toxicity – Category 1B

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1