

# MERCURY FACT SHEET

North Carolina Division of Public Health • Occupational and Environmental Epidemiology Branch

## **Chemical Information**

- Heavy, shiny, silver-white, odorless liquid.
- Nonflammable, but releases toxic vapor especially when heated.
- Highly toxic through inhalation.
- Odor does not provide any warning of hazardous concentrations.
- Used to produce chlorine gas, caustic soda, and used in thermometers, dental fillings, and batteries.

## **Hazards Identification**

### **Acute Exposure:**

- Respiratory symptoms include cough, sore throat, and shortness of breath.
- Can cause gastrointestinal symptoms such as nausea, vomiting, diarrhea, and abdominal pain.
- May also experience headache, weakness, and visual disturbances.
- Can also experience chest pain, fever, chills, and headache within a few hours of exposure.

### **Chronic Exposure:**

- Repeated or prolonged exposure can result in accumulation of mercury in the body along with permanent damage to the nervous system and kidneys.
- The Environmental Protection Agency (EPA) Acute Exposure Guideline Level 2 (AEGL - 2) for mercury is  $0.33 \text{ mg/m}^3$  for an 8-hour period.

## **Stability & Reactivity**

- Violent when comes in contact with chlorine dioxide, lithium, or rubidium.
- Reacts with acetylenic compounds, ammonia, azides, boron diiodophosphide, ethylene oxide, methyl azide, methylsilane, oxygen, oxidants, and tetracarbonylnickel.

## **Handling & Storage**

- Keep metallic mercury in a safe and secured area such as a closed container in a locked storage room that is well-ventilated.

## **Glossary**

The Environmental Protection Agency (EPA) defines Acute Exposure Guideline Levels (AEGLs) as threshold exposure limits for the general public that are applicable to emergency exposure periods ranging from 10 minutes to 8 hours. The three AEGLs are defined as follows:

AEGL-1 – airborne concentration of a substance at which the general population could experience notable discomfort, irritation or certain asymptomatic non-sensory effects.

AEGL-2 – airborne concentration of a substance at which the general population could experience irreversible or other serious, long-lasting adverse health effects or an impaired ability to escape.

AEGL-3 – airborne concentration of a substance at which the general population could experience life threatening health effects or death.

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