

# **MERCURY AND MERCURY CONTAINING LAMPS**

1. Mercury (Hg) is the only metal on earth which is liquid under normal pressure and temperature. It appears as a heavy, odor-free silver liquid with a relatively high steam pressure at room temperature. Handling of liquid mercury will therefore mean exposure to invisible and imperceptible mercury vapors which are seven times heavier than air and will disperse along the floor in a room with insufficient ventilation.
2. Due to mercury vapors present inside CFL, FTL and other Mercury Containing Lamps, these are to be handled very carefully. Due to mishandling, if CFL, FTL or any other mercury containing lamp breaks, the mercury vapors get released and these vapors being toxic and a health problem, get extensively absorbed through the lungs during inhalation. Furthermore, mercury vapors readily pass the blood-brain and the placental barriers and it can in that way have an impact on the central nervous system and the unborn child.
3. Each CFL or FTL (Tube Light) contain Mercury, ranging from 5 mg to 30 mg, depending upon whether Hg Pill or Liquid Mercury is dosed during production. As per the lighting industry, 668 Million Nos. of CFL & FTL were sold during 2014 in the Indian market and majority of **"End of life Mercury Containing Lamps ( EOL)"** are neither effectively collected nor recycled.
4. It may be noted that as per the study conducted by **Toxics Link**, an environmental NGO, based at New Delhi, 14.93 Million EOL CFLs, releasing approximately 74.65 Kg of Mercury, were disposed off unsafely in Delhi alone, during 2014. The quantum of end of life CFLs and other kind of Mercury containing Lamps, being disposed off unsafely, across all states PAN INDIA can very well be imagined.
5. CFL is a combination of Electrical and Electronic equipment in which the estimated Value of CFL Ballast (Consisting of Electronic Components) constitute about 70% of the value of complete Retrofit CFL (Light bulbs with integral ballast) and balance 30% ( estimated ) value constitute Electric BULB.
6. From the above it is clearly established that end of life CFL and other kind of Mercury Containing Lamps generate E-Waste, besides hazardous Waste, contaminated with Mercury.
7. At present **"End of life ( EOL ) Mercury Containing Lamps"** are getting mixed with other municipal waste and it is not feasible to segregate and extract Mercury from such mixed waste and ultimately it ends up in Landfill or at dump site.
8. It is surprising to note that while the FTL ( Tube Light ) industry is more than 50 years old and CFL industry is now more than 15-20 years old in India, nothing has been done so far for **"Safe Disposal / Recycling of end of life mercury containing lamps"**, either broken within the manufacturing facility or received back from the market, under warranty, what to say of End of Life (EOL) lamps dumped along with municipal waste.
9. Mercury being the most hazardous Liquid Metal on earth, it thus becomes a social and moral responsibility of every citizen to work towards safeguarding the environment by ensuring **"Safe Disposal / Recycling of end of life Mercury Containing Lamps"** and this is very much possible by joint efforts / involvement of the Govt., Producers and Consumers.