



**Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs**

Designation of TURA Higher & Lower Hazard Substances in Massachusetts

Under the Toxics Use Reduction Act (TURA), the Administrative Council on Toxics Use Reduction can designate up to 10 chemicals per year as Higher Hazard Substances (HHS) and up to 10 as Lower Hazard Substances (LHS). These designations help Massachusetts companies and communities focus their toxics use reduction efforts on those chemicals that pose the most serious threats to health and safety and the environment.

A facility is subject to TURA regulation if its annual use of a listed chemical exceeds the applicable threshold and it employs the equivalent of 10 or more full-time employees and conducts any business activities within any of the following Standard Industrial Classification (SIC) codes: 10 – 14, 20 –39, 40, 44 – 51, 72, 73, 75 and 76 , or their equivalent NAICS codes. These codes include all manufacturing, as well as transportation, utilities, and some commercial and service operations, such as dry cleaning and auto or furniture repair.

Higher Hazard Substances

The Higher Hazard Substance (HHS) designation lowers the threshold for reporting, planning, and paying fees under TURA to 1,000 pounds per year.

As of January 2017, 14 chemicals or chemical categories have been designated as HHS (see Table 1). Persistent, bio-accumulative, and toxic (PBT) substances, identified by U.S. EPA, were automatically designated as HHS in 2007 (see note in Table 1).

Lower Hazard Substances

The Lower Hazard Substance (LHS) designation does not affect reporting thresholds, but eliminates the per-chemical reporting fee. Reporting and planning requirements for these chemicals are unchanged. As of January 2017, 10 chemicals or chemical categories have been designated as LHS (see Table 2).

Table 1: Higher Hazard Substances (HHS)*

Higher Hazard Substance	CAS #/ DEP Code	Designation effective for use in calendar year**
Trichloroethylene (TCE)	CAS 79-01-6	2008
Cadmium	CAS 7440-43-9	2008
Cadmium compounds	DEP Code 1004	2008
Perchloroethylene (PCE, or perc)	CAS 127-18-4	2009
Hexavalent chromium compounds	DEP Code 1216	2012
Formaldehyde	CAS 50-00-0	2012
Methylene Chloride	CAS 75-09-2	2014
1-Bromopropane (n-Propyl Bromide) (nPB)	CAS 106-94-5	2016
Hydrogen Fluoride	CAS 7664-39-3	2016
Cyanide Compounds	DEP Code 1016	2016
Dimethylformamide (DMF)	CAS 68-12-2	2016
2,4-Toluene Diisocyanate	CAS 584-84-9	2017
2,6-Toluene Diisocyanate	CAS 91-08-7	2017
Toluene Diisocyanate Mixed Isomers	CAS 26471-62-5	2017

*Persistent, bio-accumulative, and toxic (PBT) substances, as defined by U.S. EPA, have had reporting thresholds lower than 1,000 pounds since 2000 or 2001. PBTs were automatically designated as HHS in 2007, and retain their lower PBT thresholds. EPA PBTs include: dioxin and dioxin-like compounds, lead and lead compounds, mercury and mercury compounds, PACs, benzo (g,h,i) perylene, hexachlorobenzene, PCBs, and tetrabromobisphenol A, among others. Complete list available [here](#).

HHS and LHS Designation Process

The TURA statute requires the Administrative Council to make designation decisions in consultation with the Toxics Use Reduction Institute and the statutory Science Advisory Board (SAB). The SAB provides input on chemical hazards, based on scientific considerations, and TURI develops its recommendation based on SAB's input as well as policy considerations.

In order to ensure that multiple viewpoints are represented and a range of information is taken into account, each designation decision goes through several steps. In consultation with OTA and MassDEP, TURI prepares a policy analysis, which incorporates the information from the SAB, and presents a draft recommendation to the Advisory Committee. Once the Advisory Committee's input has been taken into account, the Administrative Council considers the recommendations in public meetings and votes whether or not to designate the chemical as an HHS or LHS. All meetings of the TURA boards and committees are open to the public. More information on the process is available in the document [Decision-Making under TURA: Resources for the TURA Administrative Council and Advisory Bodies](#), available on the [TURI website](#). Definitions of the Administrative Council, the Advisory Committee, and the Science Advisory Board, can be found on the [TURA Program](#) page of EEA's website.

Any designations must be added to regulation 301 CMR 41.00 – Toxic or Hazardous Substance List to become effective. Proposed designations follow the MGL c. 30A formal public hearing and comment process prior to final regulation promulgation. Requirements are effective in the calendar year after the designation is promulgated.

Regulations proposed or promulgated by the Executive Office of Energy and Environmental Affairs can be viewed on the [TURA Program Regulations](#) page of EEA's website. The list of Toxic or Hazardous Substances, along with HHS and LHS designations, can be viewed on the [Toxics Use Reduction Act](#) page of MassDEP's website.

Table 2: Lower Hazard Substances (LHS)

Lower Hazard Substance	CAS #	Designation effective for use in calendar year
Isobutyl alcohol	CAS 78-83-1	2009
Sec-butyl alcohol	CAS 78-92-2	2009
n-butyl alcohol	CAS 71-36-3	2009
Ferric chloride	CAS 7705-08-0	2010
Ferrous chloride	CAS 7758-94-3	2010
Ferric sulfate	CAS 10028-22-5	2010
Ferrous sulfate	CAS 7720-78-7	2010
Ferrous sulfate (heptahydrate)	CAS 7782-63-0	2010
Butyl acetate	CAS 123-86-4	2010
Iso-butyl acetate	CAS 110-19-0	2010

Key Information for Toxics Users

- **Higher Hazard Substances:** Facilities in TURA covered SIC codes that have 10 or more employees and use **1,000 pounds or more** of a Higher Hazard Substance (or lower amounts for PBTs) must:
 - File an annual toxics use report and pay an annual toxics use fee
 - Prepare a toxics use reduction plan, or plan update, every two years
- **Lower Hazard Substances:** The **per-chemical** fee is eliminated for these substances. Other TURA requirements are unchanged.

For More Information

The Office of Technical Assistance (OTA) (www.mass.gov/eea/ota or 617-626-1060) and the Toxics Use Reduction Institute (TURI) (www.turi.org or 978-934-3275) offer services, including grants, training, and on-site technical assistance, to help companies shift to safer alternatives. For reporting and planning requirements and procedures, contact the Massachusetts Department of Environmental Protection (MassDEP) at (617)-292-5500 or visit www.mass.gov/eea/agencies/massdep.

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