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# **Standard Practice for Regulatory Information for Chemicals Used in AASHTO Tests**

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**AASHTO Designation: R 16-04 (2016)**  
**Release: Group 1 (April 2016)**



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# Regulatory Information for Chemicals Used in AASHTO Tests

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## 1. SCOPE

- 1.1. This standard practice provides a reference listing of chemicals used in the various AASHTO Test Methods (see Table 1). It includes current regulatory codes and hazard classifications. The list does not include radiation hazards. This practice is not intended as a substitute for law or regulation.
- 1.2. The chemical list must be provided to all laboratory employees engaged in performing AASHTO tests. In addition, all laboratory employees must be trained in proper handling procedures as stated in the OSHA 1910.1200 Hazard Communication Standard or governing state regulation. Laboratories performing AASHTO tests shall establish a Chemical Hygiene Plan as set out in 29 CFR 1910.1450, including the training requirements therein.
- 1.3. This practice supplements data found in Material Safety Data Sheets (MSDSs) supplied by manufacturers. This practice is for quick reference ability and is not intended to replace MSDSs.

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## 2. INTRODUCTION

- 2.1. *In an effort to assure uniform compliance with regulations, the following definitions are cited:*
  - 2.1.1. A hazardous chemical includes any substance that is in the definition of health hazard adopted by the United States Occupational Safety and Health Administration.
  - 2.1.2. A hazardous waste includes, but is not limited to, any substance that has been assigned a code number from the EPA "Unlisted (Characteristic) Hazardous Wastes" code. All hazardous waste must be disposed of in accordance with EPA, state, and local regulations.
- 2.2. Should there be any questions regarding whether a substance is hazardous, contact the local governing authority.

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## 3. CHEMICAL LIST

- 3.1. This section contains definitions of the terms and abbreviations contained in the list. All information is valid as of the date of this practice.
- 3.2. CAS No. is the number assigned to a substance by the Chemical Abstracts Service.
- 3.3. Test Method refers to the AASHTO test method in which the chemical is used.

- 3.4. NIOSH REL is the Recommended Exposure Limit established by the National Institute for Occupational Safety and Health. The value corresponds to the concentration in air to which the employee may be exposed. These limits are a time-weighted average for an eight-hour workday.
- 3.4.1. *Abbreviations under NIOSH REL and OSHA PEL:*
- ppm is parts per million
  - mg/m<sup>3</sup> is milligrams per cubic meter
  - µg/m<sup>3</sup> is micrograms per cubic meter
  - CL is Ceiling Limit
  - STEL is Short-Term Exposure Limit, which is for a 15-minute duration
  - f is fume
  - d is dust
  - rf is respirable fraction
- 3.5. OSHA PEL is the Permissible Exposure Limit established by the Occupational Safety and Health Administration. These PELs went into effect September 1, 1989. The PELs are time-weighted average concentrations, just as the NIOSH RELs are.
- 3.5.1. See Section 3.4.1 for abbreviations used.
- 3.6. Carcin denotes substances that are listed as carcinogens in one of the following three sources:
- 3.6.1. NTP denotes a substance listed on National Toxicology Program's Annual Report on Carcinogens.
- 3.6.2. IARC denotes a substance listed in the International Agency for Research on Cancer's Monographs, Groups I and II.
- 3.6.3. OSHA's 29 CFR 1910, subpart Z.
- 3.7. *Skin*—An "X" in this column denotes a substance for which skin contact is to be avoided, as it may be a route of entry. This includes mucous membranes and eyes.
- 3.8. DOT Label denotes Department of Transportation Hazard Class for transportation of these substances.
- 3.8.1. *Abbreviations under DOT Label:*
- Flam. is flammable
  - Liq. is liquid
  - St. Andr. † is St. Andrew's Cross (poison label)
- 3.9. RCRA No. is the number assigned to a substance under the Resource Conservation and Recovery Act.
- 3.10. SHIP Code is the identification number assigned by the U.S. Department of Transportation in the Emergency Response Guidebook to hazardous materials for international and domestic shipment.
- 3.11. DOT Guide is a number assigned by the U.S. Department of Transportation for providing guidance primarily during the initial phases of an incident.