OSHA Begins National Emphasis Program on Occupational Exposure to Isocyanates

OSHA has initiated a new National Emphasis Program (NEP) that will target for inspection workplaces with occupational exposure to isocyanates. The NEP, which is designated CPL 03-00-017 and took effect on June 20, 2013, combines enforcement and outreach efforts to raise awareness of possible serious health effects of exposure to isocyanates in the workplace, including work-related asthma. OSHA will focus its inspections on general industry, maritime, and construction work that involves exposure to isocyanate compounds. Such jobs may include painting, blowing foam insulation, and the manufacture and thermal degradation of many polyurethane products such as polyurethane foam, insulation materials, surface coatings, car seats, furniture, foam mattresses, under-carpet padding, packaging materials, shoes, laminated fabrics, polyurethane rubber, and adhesives.

Appendix A of the NEP lists industries where, according to OSHA, isocyanate exposures are known or likely to occur. It also identifies sectors of the construction industry where workers are most likely to be exposed to isocyanates. For general industry and maritime, the Appendix provides a primary inspection targeting list of industries where overexposures to isocyanates have been documented. It also includes a secondary inspection targeting list of industries where worker overexposures have not been documented, but where exposures of some level are nevertheless known to occur. The types of industries that may be targeted for inspection are:

- Automotive – paints, glues, insulation, sealants, and fiber
- Printing – inks and lacquers
- Casting – foundry cores
- Timber and Furniture – adhesives, lacquers, upholstery stuffing and fabric
- Building and Construction – sealants, glues, insulation material, fillers
- Textile – synthetic textile fibers
- Electricity and Electronics – cable insulation, PUR coated circuit boards
- Medical Care – PUR casts
- Mechanical Engineering – insulation material
- Mining – sealants and insulating materials
- Paints – lacquers
- Food Industry – packaging materials and lacquers
- Plastics – soft and hard plastics, plastic foam and cellular plastic
Inspections will include a review of the employer’s chemical inventory list and Safety Data Sheets (SDSs) to determine whether isocyanates are being used. Injury and illness records will also be reviewed for recorded isocyanate exposures. The compliance officer may also interview employees and members of management to determine whether there are any unrecorded injury or illness cases.

If potential exposure to an isocyanate is determined by the compliance officer, an exposure assessment will be conducted. This will involve air sampling, wipe sampling, and an evaluation of the employer’s controls. These controls include engineering and administrative controls, work practices and personal protective equipment (PPE).

The inspection may also involve a PPE assessment and evaluation, a review of the hazard communication program, evaluation of housekeeping methods, and an evaluation of any flammable or combustible potential of any chemical components.

To prepare for these inspections, we recommend that employers determine whether workers are potentially exposed to isocyanates. This should include a thorough review of chemical inventory lists and Safety Data Sheets (SDSs), as well as injury and illness records for recordable injuries. If isocyanates are used, consideration should be given to conducting an exposure assessment including air and wipe sampling and an evaluation of controls.

We further recommend evaluation of employee training on isocyanates, the PPE program, hazard communication program, housekeeping methods, and the flammable or combustible potential of chemical components of products containing isocyanates.

If you have any questions about the OSHA NEP on occupational exposure to isocyanates, audits, or training, feel free to e-mail us at Steve Simko at ssimko@constangy.com, Bill Principe at bprincipe@constangy.com, David Smith at dsmith@constangy.com, Pat Tyson at ptyson@constangy.com, or Neil Wasser at nwasser@constangy.com. You may also call us at 404-525-8622.