

TRUCK BED LINERS

WORKER PROTECTION

WORKER PROTECTION

Truck bed lining products have protected vehicles from wear and tear over many years through the application of polyurethane, polyurea or polyurea hybrid systems. This brochure addresses worker protection during the application of spray-on truck bed liners. Though the spray application of these products protects the truck bed, the actual spraying of the truck bed liner requires specific handling and care.

Whether it is polyurethane or polyurea, virtually all these products use MDI (methylene diphenyl diisocyanate), a material that belongs to the class of chemicals known as diisocyanates. Diisocyanates such as MDI have been known to cause irritation of the eyes, nose, throat, lungs and skin. They can also cause allergic reactions (sensitization) of the skin and lungs. The Material Safety Data Sheet (MSDS) of the product will provide a list of potential health effects and their symptoms. When atomized or heated, the potential for exposure to MDI is higher.

The potential exists for developing occupational asthma if over-exposed when working with MDI. Symptoms of asthma include wheezing, shortness of breath, tightness of chest and coughing. If you experience any of the mentioned symptoms, and you work with spray-on truck bed linings, continued exposure to diisocyanates may be very harmful to your health. For instance, authorities in Michigan recently investigated the death of a worker in his mid-forties who died from an acute asthmatic attack after applying a diisocyanate-containing spray-on truck bed liner to the interior of a van. If you have health concerns, stop work immediately. In some circumstances, OSHA regulations require that you see a doctor to determine if your health is at risk. Under these OSHA regulations, your employer must provide or pay for this examination.



ALLIANCE FOR THE
POLYURETHANES
INDUSTRY

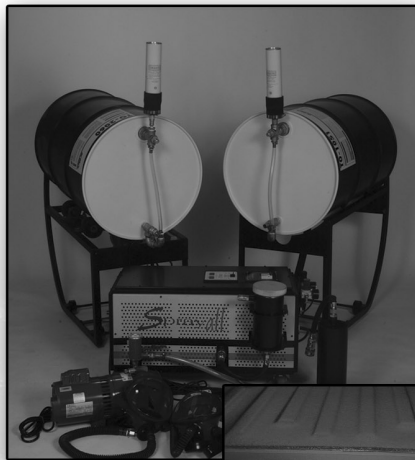
A BUSINESS UNIT OF THE
AMERICAN PLASTICS COUNCIL

WORKER PROTECTION CONT.

During the examination, tell your doctor about the symptoms and let him or her know that you have been working with or are intending to work with a diisocyanate-containing product. If diisocyanate sensitization or occupational asthma is diagnosed, or if your doctor does not clear you to work with diisocyanates due to poor respiratory function, any contact with diisocyanates, even very small amounts, may create a serious risk to your health.

Contact with very small amounts of MDI can cause an asthmatic reaction in those who are sensitized. If you become sensitized and continue to work with MDI or other diisocyanates, your underlying asthma may worsen and at some point may become life-threatening, even if you use a respirator or use an inhaler to temporarily relieve asthma symptoms.

Anyone who is not asthmatic or sensitized to diisocyanates and is cleared by a physician to work with these materials can help minimize the potential risks of exposure to MDI by keeping in mind a few simple precautions.



SAFETY PRECAUTIONS*

1. Carefully read and follow all safety precautions listed on the product label and Material Safety Data Sheet (MSDS). The MSDS will describe proper first aid procedures in case of accidental exposure.
2. OSHA regulations require employers to provide respirators where necessary to protect the health of employees (see 29 CFR 1910.134). Supplied-air respirators can protect employees from exposure to MDI during spray application and may in fact be necessary to meet OSHA or other governmental workplace requirements.
3. To prevent contact of the product with your skin or eyes, you should wear gloves, eye protection, and other protective clothing when appropriate or required (e.g., under OSHA regulations).
4. Appropriate ventilation can help minimize risks:
 - a. Use of ventilated enclosures helps contain any exhaust spray mists and vapors developing during spraying. Exhaust filters and stacks help minimize exposure to people outside the building.
 - b. A regular ventilation system preventive maintenance program will help you change filters regularly and maintain airflows.
 - c. Ventilated enclosures, when properly maintained and operated at the appropriate air flow rates, help to control airborne diisocyanate concentrations inside the enclosure and help prevent the escape of vapors and mists into the surrounding work area.
5. Testing the air after application will help determine when you can enter the enclosure without being exposed to potentially harmful levels of MDI.
6. As applicable, comply with training and other OSHA Hazard Communication Standard (29 CFR 1910.1200) requirements.
<http://www.osha.gov/SLTC/hazardcommunications/standards.html>
7. Setting up a spill clean-up plan will help you quickly clean up the product if a spill or leak occurs. Protecting people first, then minimizing environmental releases and protecting property and product, will help prevent people from being exposed to potentially harmful levels of MDI.
8. Keep in mind that inhaling smoke or vapors from welding, torch-cutting or any other hot process that blisters, chars or burns the bed lining, whether freshly applied or fully cured, may be dangerous to your health.
9. Remember that resealing the diisocyanate container when it has become contaminated with moisture could cause the container to swell and potentially rupture with explosive force.
10. Periodic medical monitoring of workers, including pulmonary function testing, will help determine medical fitness to continue working with MDI.
11. Be aware that there may be other federal, state and local regulations that apply to the operations at your worksite beyond those mentioned in this document.



1300 Wilson Boulevard, Arlington, VA 22209
Phone 703-741-5656 • Fax 703-741-5655
www.polyurethane.org www.plastics.org

* These precautions are not all-inclusive, and do not identify all the safety measures or legal requirements that may apply at your particular worksite. Consult the supplier's MSDS, the websites provided in this pamphlet, and the laws that apply to your worksite for additional information.

This bulletin was developed by the Alliance for the Polyurethanes Industry (API), a business unit of the American Plastics Council. It is intended to briefly summarize the current state of health hazard and safety information associated with the application of polyurethane truck bed liners. It is not intended to provide specific legal or technical advice, nor to endorse specific polyurethane proprietary products or processes, and is made WITHOUT WARRANTY, EXPRESSED OR IMPLIED AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, OR ANY OTHER MATTER. Persons applying polyurethane truck bed liners should consult with their own technical and legal advisors and other appropriate sources of safety and handling information, including information from product suppliers, product labels, technical bulletins, MSDSs, and other sales literature.

©2004 by The American Chemistry Council, Inc. All rights reserved.

AX362