MSDS of oil manufacturer precise: "Health studies have shown that many hydrocarbons pose potential human health risks which may vary from person to person."

Issue Brief Mineral Oil Mist - Proposed Change in ACGIH TLV-TWA & Carcinogenicity Status

Backgound:

Acute and chronic exposure to mineral oil mists is regulated in the United States by an OSHA permissible exposure limit (PEL) of 5 mg/m^3 as an 8-hour time-weighted average (TWA) concentration. A similar approach has been taken in Canadian jurisdictions. Exposure to mineral oil mist can occur through inhalation, ingestion, and eye or skin contact. Additionally, both the National Institute for Occupational Safety and Health (NIOSH) and the American Conference of Governmental Industrial Hygienists (ACGIH) have established 5 mg/m^3 recommended exposure limits to mineral oil mists based on the risk of respiratory effects. By definitions in the documentations for these regulatory/authoritative bodies, mineral oils and their mists include: white mineral oil (considered food-grade), paraffin oil, cutting oil, hydraulic oil, transformer oil, lubricating oil, and others. Mineral oils are a component of metalworking and machining fluids.

Issue:

ACGIH has completed a review of the current scientific literature on mineral oils, including acute, chronic and carcinogenicity animal and human studies. On the weight of the evidence of these studies, ACGIH proposed, for 2001, to (1) lower the TLV-TWA of mineral oil mists to 0.2 mg/m^3, and (2) to assign an A2, Suspected Human Carcinogen designation to mineral oil mists. According to the ACGIH timeline for changes to existing TLVs, their board is expected to recommend adoption of the proposed TLV at their April meeting. In fall 2001, their full committee meets to affirm their recommendation. The proposed change will then be published as a notice in the 2002 ACGIH - TLV book, with the new TLV and A2 Suspected Human Carcinogen status to become final in 2003. Any change to the TLV on mineral oils by the ACGIH will probably be adopted without review in Canada.

What you need to know:

If you use mineral oils in any applications in your operations, and this becomes an established ACGIH-TLV limit, in the United States you will be subject to the provisions of the OSHA Hazard Communication Standard, and in Canada, you will be subject to the provisions of WHMIS under the Hazardous Products Act. The MSDS must disclose all "health hazards" posed by a chemical and the product label must include all appropriate hazard warnings". In the United States, ACGIH carcinogenicity classifications do not make the chemical a listed carcinogen, but it could be deemed to pose a carcinogenicity hazard based on the results of scientific studies. In Canada, ACGIH carcinogenicity classifications make the chemical a listed carcinogen under WHMIS. You will need to make the determination as to whether this carcinogenicity disclosure represents the introduction of a new hazard in the workplace, or presents other circumstances requiring supplemental training of affected employees. You will need to make a determination of employee exposure to mineral oil mists and the adequacy of current protective measures. Oil mists may be generated by several routes such as aeration, contact with a fast-moving surface, or by heating. Some plastics applications associated with potential generation of oil mists include metalworking and mold making, mist lubrication, mold release agents, oil-lubricating tools, and printing inks. There are many others. You will need to make those determinations for your facility.

For additional information please contact Susan Howe, SPI Senior Technical Director, Worker & Product Safety, 202/974-5223; showe@socplas.org; or Mimi Singh, Director of Environment, Health and Safety, Canadian Plastics Industry Association, 905/678-7405 ext. 270; msingh@cpia.ca

Click here for comments submitted by SPI to to ACGIH - concerning the proposed changes to the TLV-TWA for Mineral Oil Mists