Title: Shanghai Health Study results presented at 2009 Benzene Symposium

1. Background

Benzene 2009, an international symposium whose focus was benzene-induced bone marrow damage, was held in Munich Germany from September 7 – 11, 2009 (http://www.tierrad elsolmoab.com/benzene/). Studies were presented on the health effects of benzene exposure as well as studies to understand the mode of action of toxic effects. In total, 104 persons were registered for this symposium. The majority of the conference attendees were from universities and governmental agencies, only about 20 attendees were from the petrochemical industry.

2. Shanghai Health Study

Included in these presentations were reports from the researchers who conducted the Shanghai Health Study, whose objective was to understand better the health risks from exposure to benzene. Shell is one of the sponsors of this study. This research was overseen by scientific and ethics review panels composed of independent experts. The comments by the review panels, both oral and written, were positive.
An important feature of the the Shanghai Health Study was the development of a diagnostic laboratory that could incorporate the latest technology in order to include the World Health Organization (WHO) 2002 criteria for classification of lymphohematopoetic cancers. Many earlier benzene exposure studies were based on medical records with little opportunity for full clinical evaluations.
Shell employees in attendance at Benzene 2009 were gratified to hear positive comments about the study.

3. Preliminary findings

Although a causal relationship between high level benzene exposure and Myelodysplastic Syndrome (MDS) was earlier identified, the Shanghai study investigators suggested a certain sub-group, MDS-U, has been found to be more associated with benzne exposure than with MDS overall.

This is not an issue for Shell. We have had MDS statements on our Material Safety Data Sheets for benzene and benzene-containing products since 2005.

"Benzene MSDS Revision to add MDS. (Included for documentation)

Investigators noted that for Acute Myelogenous Leukemia (AML) risk increases with dose.

The Shanghai Health Study seems to indicate no causal relationship between benzene exposure and non-Hodgkin's Lymphoma (NHL). For one subgroup – Follicular Lymphoma (FL) - there is an association with potential benzene exposure; however, no dose response was established. The significance of this result is still under consideration.

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