

## Title

### 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. Studies were presented on the health effects of benzene exposure as well as the toxicity mechanism for certain types of leukemia. 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. (Think about adding a link to the website.)

### 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. 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.

The Shanghai Health Study is seen (this seems a little awkward, but I cannot suggest a change ) as truly clinical research in that it allowed investigators to identify cases and study them forward, employing a classification system developed by the World Health Organization. Many earlier benzene exposure studies were based on medical records with little opportunity to evaluate tissue samples or conduct interviews.

(Shell employees in attendance at Benzene 2009 did not hear any negative comments directed toward this study or its outcome.) consider flipping this to Shell employees in attendees heard only positive comments about the study.

Are we not going to include the fact that Shell was a sponsor of the study?  
Otherwise, why are we highlighting this one particular part of the symposium and not other reports?

### 3. Other Findings - Don't understand this header. These are the findings of Shanghai – header implies presentations other than Shanghai,

- A. Although a causal relationship between high level benzene exposure and Myelodysplastic Syndrome (MDS) was earlier identified, a certain sub-group, MDS-U, has been found to be more associated with benzene 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,

- B. Investigators noted that for Acute Myelogenous Leukemia (AML) risk increases with dose. At an exposure level of 3 ppm, they observed a 2-fold increase in both AML and one of its subtypes, xxx. Again, this finding gives more clarity to results from earlier studies. Shell Material Safety Data Sheets and other hazards communications documents discuss the link between benzene exposure and AML.
- C. 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 risk of FL was also increased among those who had potential exposure to petroleum fuels or gasoline. Because the finding is based on a small number of cases (7) it is not conclusive. Shell will likely report this as a new finding to the US Environmental Protection Agency (EPA) under TSCA 8(e) reporting rules. We will also take action to review our safety documents and ensure that all critical information is provided to anyone who comes in contact with our benzene-containing products.

Suggest not including the last paragraph until a decision is made wrt the 8(e). Then, we can either omit it if we decide not to file or more affirmatively state that we did file an 8(e).

Author

Date

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