

All,

Thank you for your participation in the "Ammonia As Transportation Fuel- II" seminar held October 13-14, 2005 at Argonne National Laboratories. We hope that the information presented was interesting and informative.

One rather unfortunate item is the misunderstanding some people had relating to one presentation that included information on a fatal chemical spill. The information provided may have not made it clear that the January 2005 train wreck in South Carolina involved chlorine, not ammonia. Chlorine is heavier than air, which exacerbated the problem. Ammonia is lighter than air and dissipates relatively rapidly. The following objective information helps in this type of issue:

Actual ammonia LC50 ratings would give it a Health Rating of 1 (slightly hazardous) on the MSDS sheet (even though the powers-that-be arbitrarily assign a Health Rating of 3). The Health Rating for chlorine is a well-deserved 4 (extremely hazardous).

The actual numbers are:

ammonia - 2000 ppm/4 hours inhalation-rat LC50

chlorine - 293 ppm/1 hour inhalation-rat LC50

For comparison the inhalation-rat LC50 rating for carbon monoxide is 1807 ppm/4hours, slightly worse than ammonia!

Make sure to notice that the rating for chlorine is for one hour and the ratings for CO and NH3 are for 4 hours. It seems unfair to consider ammonia and chlorine to be even remotely similar in terms of inhalation health risk.

Any comments you may have related to the seminar would be appreciated.

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