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07/28/2005 08:44 AM

To NCIC OPPT@EPA, Rtk Chem@EPA

cc

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Subject Response to HPV comments

The attached documents are the revised test plans and summaries for N-ethyl-N-(3-methylphenyl)-1,2-ethanediamine (CAS No.: 19248-13-6). Hard copies and a disk containing electronic copies are being sent via regular mail. This submission concludes are responsibilities for this chemical.

<<amine 3 comments to epa.pdf>> <<Amine 3(072705).pdf>>

<<IUCLID Amine III 19248-13-6 (072705).pdf>>

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amine 3 comments to epa.pdf



Amine 3(072705).pdf



IUCLID Amine III 19248-13-6 (072705).pdf

July 27, 2005

Administrator  
US EPA  
PO Box 1473  
Merrifield, VA 22116

Attn: Chemical Right-to-Know Program

**RE: HPV Chemical Challenge Program, AR-201**

Dear Administrator,

This letter is submitted by Eastman Chemical Company ("Eastman") in response to comments received from the Environmental Protection Agency ("EPA") dated May 21, 2004 following EPA's review of the test plan and robust summaries the chemical N-ethyl-N-(3-methylphenyl)-1,2-ethanediamine (CAS No.: 19248-13-6) as part of my Company's commitment to the US EPA HPV program. I would like to thank the EPA for its review and welcome their recognition that this material met the requirements of a site limited closed-system intermediate and is thus subject to limited testing.

The HPV registration number for Eastman Chemical Company is

Below are some specific comments the EPA raised in regard to our test plan and various robust summaries, and our responses:

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Physicochemical Properties (melting point, boiling point, vapor pressure, partition coefficient and water solubility)

The data provided by the submitter for partition coefficient are adequate for the purposes of the HPV Challenge Program.

1. *Melting Point.* The submitter provided a melting point value of  $< 0$  °C. Open range values are not adequate for the purposes of the HPV Challenge Program. The submitter needs to provide a measured value for this endpoint. For values under 0 °C, calculated values are adequate for the purposes of the HPV challenge Program.

The EPIWIN modeling program calculated a melting point value of 63.05 °C. Thus, we believe the measured result we provided of  $< 0$  °C yields a value of higher accuracy despite being conducted under a non-OECD protocol. The EPIWIN value has been added to the results.

2. *Boiling Point.* The submitter provided a boiling point value of  $> 250$  °C. Open range values are not adequate for the purposes of the HPV Challenge Program. The submitter needs to provide a measured value for this endpoint, or a temperature at which it starts decomposing if boiling is not achieved. For values over 300 °C, calculated values are adequate for the purposes of the HPV Challenge Program.

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The material was noted to not boil at the maximum temperature at which the thermometer was calibrated (250 °C). However, the method used was an established ASTM method and it was noted that the material had turned brown upon heating. Thus, it could be concluded to have begun a decomposition process. Since this material is site limited and manufactured in a closed system the current data are believed to be an adequate estimation.

3. *Vapor Pressure.* The submitter provided a calculated vapor pressure value of 0.036 hPa (0.027 mm hg) at 25 °C. Estimated values over  $10^{-5}$  Pa are not adequate for the purposes of the HPV Challenge Program. The submitter needs to provide measured vapor pressure data for this chemical following OECD guidelines.
4. *Water Solubility.* The submitter provided a calculated water solubility value of 12,090 mg/L at 25 °C. Estimated values over 1 µg/L are not adequate for the purposes of the HPV Challenge Program. The submitter needs to provide measured water solubility data for this chemical following OECD guidelines.

The data submitted by Eastman Chemical Company for these two endpoints were derived by EPIWIN modeling and are thus believed to adequate to fulfill the physicochemical endpoints. This conclusion is based on the statement in the EPA document entitled The Use of Structure-Activity Relationships (SAR) in the high Production Volume Chemicals Challenge Program which reads “In the event that neither measured data nor reference book values are available, estimations using an appropriate model will be accepted for all physicochemical endpoints.”

Environmental Fate (photodegradation, stability in water, biodegradation, fugacity).

The data provided by the submitter for photodegradation, stability in water, and biodegradation are adequate for the purposes of the HPV Challenge Program.

1. *Fugacity.* The submitter needs to recalculate its fugacity estimation, using measured physicochemical values as noted above under Physicochemical Properties.

The fugacity information summarized in our submission was calculated using data that are believed by Eastman to be appropriate data. Fugacity estimation results obtained using the EPIWIN defaults based on EPIWIN estimated values for the physical chemical endpoints yields similar results. The material is a closed-system site-limited intermediate.

This letter and the enclosed test plan and IUCLID file has also been sent to the Agency by email ([oppt.ncic@epa.gov](mailto:oppt.ncic@epa.gov), [chem.rtk@epa.gov](mailto:chem.rtk@epa.gov)).

Sincerely,

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