AR 201-15893

LYONDELL

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Ms. Christine Todd Whitman, Administrator
U.S. Environmental Protection Agency
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Subject: High Production Volume (HPV) Chemical Challenge Program – Lyondell Chemical Company Registration No. ( )

Dear Administrator Whitman:

The Lyondell Chemical Company respectfully requests that EPA change the designation for CAS # 823-40-5 (2,6-Toluene diamine or 2,6-TDA) to "No Longer HPV" for the reasons outlined below.

Background

1. The Lyondell manufacturing facility was built by Olin Mathieson in 1934, and the TDI(TDA) facility was built in 1972. The facility was acquired by Arco Chemical Company in 1996 and was then acquired by Lyondell in 1998 in its acquisition of Arco Chemical. The production of TDI from toluene takes place in three steps, the second of which involves TDA:

    1. Nitration of toluene
    2. Hydrogenation of dinitrotoluene to TDA
    3. Phosgenation/Purification

    The TDA produced in the second step is a 2,4/2,6-toluenediamine mixture (CASRN 25376-45-8). The mixture is approximately 80% 2,4-TDAand 20% 2,6-TDA.

2. From an industry perspective, the commercial product (CAS #25376-45-8) is the mixture of the two toluenediamine isomers. Lyondell and the predecessor owners of the facility have not and do not separate the individual isomers.
3. Olin's 1990 and 1994 IUR reporting convention was to report 2,4-TDA (CASRN 95-80-7) and 2,6-TDA (CASRN 823-40-5) as separate isomers, an approach allowed in IUR reporting. The practice of reporting the individual isomers was maintained by Arco Chemical for the 1998 TSCA IUR.
4. While it was technically correct for Olin and then Arco Chemical to report the individual isomers, the TDI/TDA industry convention is to report TDA production as the generic mixture (CASRN 25376-45-8).
5. Based on 1990 and 1994 IUR data submitted by Olin and the 1998 IUR data submitted by Arco Chemical, EPA added 2,6-TDA to the HPV list.

6. Lyondell is in the process of preparing its 2002 IUR submission. In this 2002 submission, the individual isomers, 2,4-TDA and 2,6-TDA, will no longer be reported, but rather the 2,4/2,6-toluene diamine mixture (CAS #25376-45-8) will be reported. This will allow EPA to designate 2,6-TDA as a "no longer HPV" chemicals because 2,6-TDA will not be reported in excess of 1 million pounds in Lyondell's 2002 IUR submission.
7. The 2,4/2,6-toluene diamine mixture (CAS #25376-45-8), also called toluene-ar,ar-diamine, is covered in the HPV program by its sponsorship in the ICCA SIDS program (HPV Indicator = 2, and HPV Sponsorship Value = F.)
8. The isomer 2,4-TDA (CAS# 95-80-7) already carries the HPV Indicator = 2 indicating it is already covered in the OECD/SIDS program.

Summary

Lyondell does not separate the TDA isomers in its production process. It produces the 2,4/2,6 – TDA mixture (toluene-ar,ar-diamine, CAS# 25376-45-8). In the 2002 IUR, Lyondell will change the reporting convention and only the mixture will be reported.

Lyondell respectfully requests that CAS # 823-40-5 (2,6-TDA) be designated as "no longer HPV."

Sincerely,

Dr. Wm. Claude White
Lyondell Chemical Company

WCW/rt

Cc: Charles Auer, EPA
HPV File

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cc:

Subject: HPV Chemical Challenge Program - Lyondell Registration No.

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