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Houston, TX 77253-3646
Telephone: 713.652.7200

CERTIFIED MAIL

March 23, 2001

TSCA Document Control Office (7408)
Office of Pollution Prevention and Toxics
Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington DC 20460

Contain NO CBI

Attention: TSCA 8(e) Coordinator

RE: **2-Phenylethyl Alcohol (CAS No. 60-12-8). Cell Proliferation in Lungs of Mice Administered Intraperitoneal Doses.**

Dear Sir or Madam:

Lyondell Chemical Company (Lyondell) has received preliminary results from a study evaluating possible mechanisms of toxicity of styrene and its metabolites (including 2-phenylethanol) on the lung. We are submitting this information in accordance to Section 8(e) of the Toxic Substances Control Act (TSCA) and EPA's 1991 Section 8(e) Reporting Guide because it includes a finding that EPA may consider to be 8(e) reportable. Lyondell has not made a determination as to whether a significant risk of injury to health or the environment is actually presented by the findings.

The information received was from a presentation of the study given at an industry meeting on March 5, 2001. The study is being conducted at BASF Aktiengesellschaft and is sponsored by the Styrene Steering Committee (SSC). As part of the study, female mice were given one or three intraperitoneal injections of 100 mg styrene, 1-phenylethanol, 2-phenylethanol, phenylacetalddehyde, acetophenone, or phenylacetic acid. Twenty four hours following the last dose, the mice were sacrificed, lung tissue was harvested, and regional cell proliferation rates were measured. For the 2-phenylethanol treated mice, cell labeling in the alveolar cell region was 187 and 144 % of the control values after one and three doses, respectively. These increases were statistically significant. There were also some changes in regional cell proliferation rates with other of the metabolites. Additional evaluations of the tissues are currently on going.

To our knowledge, this is the first report of alveolar cell proliferation in the mouse lung following intraperitoneal administration of 2-phenylethanol. Attached is the study results slide provided at the presentation. We will forward the final report for this study when it is completed.

Specific questions concerning this submission should be directed to my attention at 713-309-2136.

Sincerely,

Patrick L. Gibson

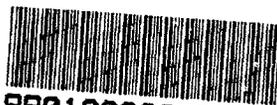
Patrick L. Gibson
Product Safety Specialist - Regulatory
Corporate TSCA Coordinator
Lyondell Chemical Company

Enclosure

Lyondell Chemical Company



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A 04

Mechanistic study on styrene and metabolites: 3 x 100 mg/day ip-application, 24 and 72h

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Results:

Induction of Cell proliferation in Lungs of Female CrI:CD-1 mice

24h

Compound	Large+medium bronchi		Terminal bronchioles		Alveoli (pneum. I and II)	
	%*	LI**	%*	LI**	%*	LI**
Control	100	0,9	100	1,99	100	4,27
Styrene	170	1,5	134	2,67	113	4,84
1-Phenylethanol	159	1,4	88	1,76	133	5,69
2-Phenylethanol	164	1,5	111	2,22	118	7,97
Phenylacetaldehyde	206	1,8	122	2,44	149	19,19
Acetophenone					154	6,57
Phenylacetic acid					217	9,25

72h

Compound	Large+medium bronchi		Terminal bronchioles		Alveoli (pneum. I and II)	
	%*	LI**	%*	LI**	%*	LI**
Control	100	0,9	100	1,99	100	4,27
Styrene	187	1,7	176	3,51	109	4,64
1-Phenylethanol	173	1,6	138	2,76	104	4,42
2-Phenylethanol	211	1,9	100	1,99	122	6,17
Phenylacetaldehyde		0,3	54	1,07	326	13,92
Acetophenone	86	0,8	54	1,09	145	6,21
Phenylacetic acid	26	0,2	36	0,72	291	12,42

*% = relative to control

**LI = value expressing the relation of „counted, positive labelled alveolar cells“ to „calculated number of all alveolar/brochiolar cell in the measurement field“

Measurements: evaluation of at least 1000 alveolar/bronchiolar cells per animal

BASF Preliminary Study, reported at Styrene Information & Research Center Meeting 3/5/01.