

SPI TOXICOLOGY SUBCOMMITTEE

Tuesday July 12, 1977
9:30 A.M.

SPI Conference Room
New York, N.Y.

SUMMARY:

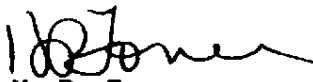
- 1 - SPI will obtain an opinion from Keller & Heckman concerning the implications of collecting and sharing toxicological information.
- 2 - Prior to establishing an Additives Committee, contact will be made with the Chemical Specialties Manufacturers Association and SPI member companies who are both resin and additive suppliers as to the best way of gathering data on additives.
- 3 - Members companies are to review the repropoed TSCA reporting regulations to determine if a Plastics Industry response is needed separate from other chemical industry responses.

ATTENDEES:

Ken Burgess - Dow Chemical 2040 Dow Center, Midland, Mich. 48640
C. Elmer - Monsanto 800 N. Lindbergh, St. Louis, Mo. 63166
Louis Erb - Hercules Inc. 800 Greenbank Road, Wilmington, Del. 19808
William F. Gorham - Union Carbide Corp. River Road, Bound Brook, N.J. 107922
Karl A. Hochschwender - American Herchst Corp., Route 202 - 206 North, Sommerville, N.J. 08876
Robert B. Isaacson - Celanese Morris Court, Summit, N.J. 07901
John Lawrence - SPI 355 Lexington Avenue, New York, N.Y. 10017
I. A. Lundgaard - DuPont PP&R Dept: 1007 Market Street, Wilmington, Del. 19898
M. V. Noble - DuPont PP&R Dept. 1007 Market Street, Wilmington, Del. 19898
Donna J. Roberts - Dow 2020 Dow Center, Midland, Mich. 48640
Edw. J. Sowinski - Uniroyal Spencer, Naugatuck, Ct. 06770
Pat Toner - SPI 355 Lexington Avenue, New York, N.Y. 10017
Benj. M. G. Zwicker - B. F. Goodrich Chem. Co. 6100 Oak Tree Blvd., Cleveland, Oh.

- 1 - The meeting was opened by self introductions.
- 2 - Each subcommittee chairmen reported on the activities and problems of each subcommittee. There was a concern expressed at each subcommittee meeting about sharing of unpublished data, location of the "data bank", accessibility to the "data bank" and the implications of establishing a "data bank". These issues also generated considerable discussion among the committee members. It was decided that SPI should obtain an opinion from counsel on these issues prior to the committee establishing guidelines for the subcommittee.
- 3 - Each subcommittee also expressed the need for a unified effort to obtain toxicology data from suppliers of additives. Rather than establish an additives committee at this time I.A. Lundgaard, & J.R. Lawrence will discuss the problem with Wm. Considine at CIBA Geigy who showed great interest in our program at Washington and is also an additive supplier. Contact will also be made with the Chemical Specialities Manufacturers Association (CSMA) and SPI member companies who are both resin and additive suppliers. SPI will have counsel review a draft letter prepared by B. M. G. Zwicker requesting toxicology data from additive suppliers.
- 4 - BMG Zwicker reported that the vinyls subcommittee had established a vinyl acetate task force. The task force will be holding its first meeting 7/20/77. It was determined that an SPI representative to present at all meetings, including technical meetings such as this.
- 5 - CIIT will be contacted by SPI to determine their time schedule for propylene, vinyl acetate, formaldehyde and maleic anhydride.
- 6 - Several subcommittee chairmen reported that subcommittee members thought SPI should be prepared to make a response to the new TSCA reporting rules. A need was also expressed for a unified nomenclature for reporting of multi-component polymers. It was determined that all members review the new rules when they are issued and then contact SPI if they see a need for an industry response.
- 7 - BMG Zwicker recommended Waveland D. Davis succeed Dr. Zwicker as chairman of the vinyls subcommittee upon Dr. Zwicker's retirement. The chairman approved the recommendation.

Respectfully submitted,



H. P. Toner
Assistant Technical Director

HPT:md

MINUTES, POLYOLEFIN TOXICOLOGY SUBCOMMITTEE

The meeting was called to order by the chairman, Dr. W. F. Gorham, at 9:30 a.m. June 23 at the Marriott Twin Bridges Motel, Washington, D.C. After self-introductions, the minutes of the April 17 meeting were distributed.

Action by the Vinyls Subcommittee at their June 22 meeting regarding substances also of interest to this group were reported to be as follows:

1. Vinyl acetate--recommended for further toxicity testing.
2. Ethylene and propylene--referred to this committee.
3. Peroxide catalysts--referred to suppliers.
4. PVC respirable particles--task force to study.

The subcommittee reviewed in detail the June 15 Interim Report of Foster D. Snell, Chapter III-A, Polyolefins, to be sure that all substances requiring further study are identified. These substances consist of fumes including acrolein, dust, peroxides, ethylene, propylene, vinyl acetate, butene, hexene, and chromium oxide catalysts. Low molecular weight hydrocarbons was added.

The subcommittee also reviewed Chapter IV, Plastics Additives, to identify those critical substances used in polyolefins. There were as follows:

Antioxidants	Organic phosphites especially TNPP Thiosters (of less concern) Phenolic derivatives
Antistatic Agents	Amine type only
Colorants	Cadmium pigments Chromium and lead pigments Carbon black Phthalocyanines Titanium dioxide Iron oxides Ultramarine blue Molybdate orange Azo pigments
Fillers and Fibres	Glass fibres
Flame Retardants	Antimony oxide Dechloranes
U. V. Absorbers	Nickel compounds Benzotriazoles Benzophenones
Crosslinking Agents	Peroxides including Dicup (B priority)

The subcommittee then reviewed, classified, and discussed the current status of all substances identified as critical to polyolefin plastics. Action plans were agreed upon as follows:

Monomers

Ethylene--A 2 year inhalation study is under way at CIIT and information to date indicates there are no problems. This committee will monitor the study since many member companies support CIIT. No further action recommended.

Propylene--Appears on second CIIT list of candidate materials but there is no assurance work will be done in the near future, if at all. This committee will recommend that SPI contact CIIT urging them to support toxicity studies and hopefully obtain some commitment with a timetable.

Butene-1 and Hexene-1--These monomers are referred to our Toxicology Committee for literature surveys and review.

Vinyl Acetate--This committee defers to the Vinyl Subcommittee and supports their recommendation that additional toxicity studies be supported.

Polymer Constituents

Low Molecular Weight Fractions of Polymers--USI and UCC both have unpublished 90-day feeding studies in rats and dogs. These will be made available to the Toxicology Committee for critical review. Others are urged to submit any available information.

Chromium Oxide Catalyst Residues--Phillips has 90 day feeding studies on chromium oxide catalyst residues which they will provide to the Toxicology Committee. UCC has extraction studies on HDPE resins in simulating food solvents which show migration at fractional ppb levels which will also be provided. The Toxicology Committee will review both to assess potential hazards. A catalyst manufacturer, Davison Chemical Co., will also be approached for toxicology.

Peroxide Residues--Low priority with no recommendation at this time.

Decomposition Products--Fumes have been studied by Dow, Phillips, UCC, and others. It was agreed that anyone having data will submit to W. B. Ackart (Union Carbide Corporation, River Road, Bound Brook, NJ 08805) who will summarize and report at the next meeting. Low molecular weight hydrocarbons and acrolein are assumed to be present in fumes. Dust is given a low priority because (1) resin particles are probably not of respirable size, and (2) are probably physiologically inert.

Additives

The formation of an Additives Committee is under consideration by the parent Toxicology Strategy Committee. Dr. Gorham will report our interest in the additives previously identified. If the Additives Committee then does not obtain adequate information on these substances of interest, this committee will consider contacting suppliers for information.

Consideration was then given to the formation of a Toxicology Subcommittee which has already been assigned the following tasks:

1. Butene-1 and Hexene-1--Literature survey and review followed by a recommendation for future action.
2. Low Molecular Weight Fractions of Olefin Polymers--Critical review of UCC and USI feeding studies.
3. Chromium Oxide Catalyst Residues--Review of Phillips feeding study and UCC extraction data and assessment of potential hazard.

Potential members are Dr. Homan of UCC, Dr. McFarland of Gulf, Dr. Tyler of Phillips, and Dr. Sherman of DuPont.

Dr. Hughes of Gulf suggested that the next meeting of the Polyolefins Subcommittee be held in the Southwest where many members have facilities. It was agreed that a two day meeting would be scheduled with preliminary (optional) activities on Wednesday, September 28 and a wrap-up session on Thursday, September 29. Dr. Hughes will make suitable arrangements.

The meeting was adjourned at about 2:45 p.m.

W. B. Ackart

W. B. Ackart
Secretary

WBA:jvm
June 28, 1977

ATTENDEES:

Watson B. Ackart, Union Carbide Corp. One Rive Road, Bound Brook, NJ 08805
Donald V. Anderson, Amoco Chemicals, 200 E. Randolph Drive, Chicago, Ill 60601
Eugenio Bulgarelli, Novamont Corporation, P. O. Box 189, Kenova, W. VA 25530
C. D. Burrage, Soltex Polymer Corporation, 3333 Richmond, Houston, Texas 77027
Paul E. Campbell, Phillips Petroleum Co. Plastics Technical Center,
Bartlesville, Okla 74004
John W. Carpenter, Cities Service Co. P. O. Box 300, Tulsa, Okla 74102
Joseph Foti, Novamont Corp. 1114 Avenue of the Americas, New York, NY
William F. Gorham, Union Carbide Corp. River Road, Bound Brook, NJ 07922
Alvin A. Hass, Chemplex Company, 3100 Golf Road, Rolling Meadows, Il 60008
Elton R. Homan, Carnegie Mellon Inst. Research, 4400 Fifth Avenue, Pittsburgh, Pa.
Robert L. Hughes, Gulf Oil Company, 2 Houston Center, Houston, Texas 77002
John R. Lawrence, SPI, 355 Lexington Avenue, New York, NY 10017
H. N. McFarland, Gulf Oil Corp. P. O. Box 3240, Pittsburgh, Pa 15230
Louis J. Provost, Hercules Incorporated, 9th & Market Sts. Wilmington, DE 19711
Donald W. Pugh, U.S. Industrial Chemicals Co. 1275 Section Rd. Cincinnati, Oh 45237
Robert E. Rutherford, Gulf Oil Corp. P. O. Box 3246, Pittsburgh, Pa 15236
Lad Thomka, Dow Chemical, 2040 Dow Center, Midland, Michigan 48640
H. Pat Toner, SPI, 355 Lexington Avenue, New York, NY 10017
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St. Louis, Missouri 63166