

Monsanto

FROM (NAME & LOCATION) W. S. Clark - General Offices

DATE May 26, 1970

SUBJECT PCBs/REMOVAL OF CERTAIN
AROCLORS FROM THE MARKET

REFERENCE

TO : Regional Managers and
Field Salesmen

cc W. E. Schalk
W. F. Waychoff
J. D. Wright

COMPANY CONFIDENTIAL

Before I run through the list of items which you will find in this package, let me make a couple of comments about the PCB/Aroclor situation. This program of withdrawal of part of our Aroclor line and the subsequent replacement with other Monsanto products is going to be a challenging project to say the least. We are going to be operating with some very tight time limitations and, as usual, we don't have all the information which we would like to have. However, I do not have to tell you how important the successful execution of this replacement program is. You know even better than I what the dollar volumes of sales are that are at stake.

Good communication of ideas for replacement suggestions could well be a key factor in our success. For this reason, as soon as you hear that someone has had success in such and such area, please let me know so that I can channel the information back out to the entire sales group.

Initial response to our program has been very encouraging. Certainly no one likes the idea that we are withdrawing some excellent plasticizers from the market. However, they seem to understand and to be in sympathy with Monsanto's situation. The customer response seems to be - "If that is the way it is, so be it. Now let's get to work right now on getting some replacements." I believe that this is a very constructive attitude and certainly one that we should be able to capitalize on to get in with our replacement suggestions. So let's go!

You will find in this package of material the following items which relate to the removal of certain Aroclors from the market:

DSW 343967

1. A list of suggested replacement products for the Aroclors which we are withdrawing.
2. Some statements concerning returned goods policy, policy for putting commitments in writing, and policy for the deadline for placing orders.
3. Questions which might arise concerning PCBs and their answers.
4. A list of the direct customers (sent to regional managers only) to which we are sending notification of withdrawal and a copy of the letter is enclosed.
5. A list of the distributors to which we have sent notification of withdrawal. A copy of this letter is also enclosed.

Please let me hear from you as we work our way through this program. I am ready to do everything I can to help you with your accounts. I'll look forward to talking with you.



Willis S. Clark

/dbw

REPLACEMENT SUGGESTIONS FOR
AROCLORS 1232, 1242, 1248, 1254, 1260, 1262, 1268

The attached charts present the suggestions which Monsanto has put together for replacement of the Aroclors which we are withdrawing from the market. It should be noted that these suggestions are based primarily on their suitability to an application. The cost of using these replacements will range from being more expensive to less expensive.

DSW 343969

STLCOPCB4096857

REPLACEMENT SUGGESTIONS FOR MONSANTO AROCLORS

Resin	Application	1232	1242	1248	1254	1260	1262	1268	Suggested Replacements
Polysulfide	Automotive - Thermoset Acrylics			X	X				Santicizer 679, Santicizer 213, Aroclor 5442 or Aroclor 5460 with Santicizer 261 in this order. Bentonite may have to be used with Santicizer 679 and Santicizer 213 as a thickener.
	Light Construction			X	X	X	X		Replace Aroclor 1248 and Aroclor 1254 with Santicizer 261. Or use Aroclor 5442/5460 blends with Santicizer 160/261 to replace Aroclors 1248, 1254, 1260, 1262.
Chlorinated Rubber	Coatings			X	X	X			Where resistance to concentrated H_2SO_4 is required, use 2/1 blend of Aroclor 5460/5442. In other applications, use 2/1 blends of Aroclor 5460 and Santicizer 160, Santicizer 261, Santicizer 711.
	Adhesives				X		X		Blends of Aroclor 5460/Santicizer 160 or Santicizer 261.

DSW 343970

REPLACEMENT SUGGESTIONS FOR MONSANTO AROCLORS

Resin	Application	Product Presently Used						Suggested Replacements
		1232	1242	1248	1254	1260	1262	1268
Styrene Butadiene Rubber	Coatings				X			See chlorinated rubber, coatings for suggested starting points.
	Adhesives	X	X	X	X			DBP, Santicizer 160, Aroclor 1221
Polyvinyl Acetate	Emulsion Adhesives	X	X	X	X			Santicizer 218-A/885, Santicizer 160, Aroclor 1221, Santicizer 148
	Hot Melt Adhesives			X	X			Santicizer 160
Other	Miscellaneous	X	X	X	X	X	X	A 62% Aroclor 5460/38% Aroclor 1221 blend gives viscosity equal to Aroclor 1254. Maximum Aroclor 5460 concentration possible is 70%. Higher concentrations do not allow solution of Aroclor 5460 in Aroclor 1221.
								X This is a flame retardant filler with good heat dis- tortion characteristics. Possible replacements for Aroclor 1268 might be Aroclor 5460, TPP, Phos- gard C-22-R, 2XC-20 (Development product)

DSW 343971

REPLACEMENT SUGGESTIONS FOR MONSANTO AROCLORS

Resin	Application	1232	1242	1248	1254	1260	1262	1268	Suggested Replacements
Styrene Butadiene Rubber	Coatings				X				See chlorinated rubber, coatings for suggested starting points.
	Adhesives	X	X	X	X				DBP, Santicizer 160, Aroclor 1221
	Emulsion Adhesives	X	X	X	X				Santicizer 218-A/885, Santicizer 160, Aroclor 1221, Santicizer 148
	Hot Melt Adhesives			X	X				Santicizer 160
Other	Miscellaneous	X	X	X	X	X	X	X	X This is a flame retardant filler with good heat dis- tortion characteristics. Possible replacements for Aroclor 1268 might be Aroclor 5460, TPP, Phos- gard C-22-R, 2XC-20 (Development product) A 62% Aroclor 5460/38% Aroclor 1221 blend gives viscosity equal to Aroclor 1254. Maximum Aroclor 5460 concentration possible is 70%. Higher concentrations do not allow solution of Aroclor 5460 in Aroclor 1221.

DSW 343972

GENERAL POLICY CONCERNING REMOVAL OF AROCLORS
FROM THE MARKET-PLACE

1. The following policy will be in effect covering returned goods:
 - a. If unopened containers purchased after September, 1969 are returned to the Sauget, Illinois plant or the Anniston, Alabama plant prior to 7/31/70, 100% credit will be allowed for the returned goods. No additional handling charges will be assessed. Freight will be paid by the customer.
 - b. If unopened containers purchased after September, 1969 are returned to the Sauget, Illinois plant or the Anniston, Alabama plant prior to 8/31/70, 90% credit will be allowed for the returned goods. No additional handling charges will be assessed. Freight will be paid by the customer.
 - c. If unopened containers purchased after September, 1969 are returned to the Sauget, Illinois plant or the Anniston, Alabama plant prior to 12/31/70, 50% credit will be allowed for the returned goods. No additional handling charges will be assessed. Freight will be paid by the customer.
2. In the event that a customer requests that our commitments to him be put in writing, these written statements must come from the St. Louis office.
3. Monsanto will accept orders through August 30, 1970, and will make every effort to meet these commitments. Obviously, as August 30 approaches, it will become increasingly difficult to fill these late orders and get them shipped by 8/30/70. Shipments will not be made after 8/30/70.

DSW 343973

STLCOPCB4096861

QUESTIONS AND ANSWERS ON PCBs

These are the comments which were circulated several months ago on the PCB situation. I strongly recommend that you review them.

As you know, these questions and answers were put together early in the year. Since that time, some things have changed. More data has been collected, our analytical techniques have improved, etc. The combination of several such items has led to our decision to withdraw Aroclors 1232, 1242, 1248, 1254, 1260, 1262, 1268 and Montar 1 from the market. Therefore, the attached questions/answers need to be modified accordingly. However, I believe that a review of this information, as it stands at this time, will be helpful.

DSW 343974

STLCOPCB4096862

COMPANY CONFIDENTIAL

POSSIBLE CUSTOMER QUESTIONS ON PCBs

PUBLICITY

Question 1

What articles have appeared on the PCB problem?
Will you send me copies?

Answer:

In the U. S., newspaper articles have appeared in the San Francisco Chronicle on Feb. 24, 1969, the San Francisco Examiner on Feb. 25, 1969, and the Hartford Times on Aug. 3, 1969. Numerous articles were generated by the Wisconsin "DDT Hearings" in May, 1969. At the hearings, witnesses discussed the problem of PCBs as "interfering substances" in their search for DDT in the environment. PCBs, they said, produced peaks on a gas chromatograph similar to the peaks produced by DDT. In no case was PCB indicted at the Wisconsin hearings.

Copies of the articles will be made available on request. Regional managers should contact E. V. John, Public Relations Manager Organic Chemicals Division, in St. Louis and copies will be forwarded to the customer through the regional manager's office.

In addition to the newspaper articles mentioned above, there have been radio broadcasts. At the time of the San Francisco Chronicle and Examiner articles, radios in the San Francisco area also carried the story. In August, the sports editor of the Hartford Times syndicated a radio broadcast on the subject of PCBs, and in Dec., 1969, the Canadian Broadcasting Co. (radio) carried an interview they taped with a member of our medical department.

Question 2

Were Monsnato's Aroclors specifically mentioned in these articles?
If so, which ones?

DSW 343975

COMPANY CONFIDENTIAL

Answer

Monsanto's Aroclors were mentioned in some of the articles but only in the San Francisco Chronicle story in Feb., 1969, was Aroclor 1262 specifically mentioned by number. In several of the articles, Monsanto was also identified as the sole U.S. producer of polychlorinated biphenyls, marketed under the tradename of Aroclor.

Question 3

What did the articles on the PCB problem say?

Answer

Since the outset of the "PCB problem", when the first article appeared in the U.S. press in Feb., 1969, the whole question has been closely interwoven with the question of DDT as a possible environmental contaminant.

The San Francisco Chronicle article carried a headline, "A Menacing New Pollutant." In rather sensational style, it identified PCB as a threat to birds and humans, highly toxic in a gaseous state and related to known cancer-causers. PCB presence in the environment is rising swiftly, the article stated.

The Examiner article called PCB a "plastic pollutant in the Bay and Mothers' Milk." This article called PCB an "alarming" new chemical pollutant that is playing a role in the declining peregrine falcon population, has been found in mothers' milk, and is the "latest addition to a growing list of chemicals in the ocean---- the newest symptom of man's chemical invasion of the ocean."

These two articles quoted Dr. Robert Risebrough, a researcher at the Institute of Marine Resources in the University of California's Department of Nutritional Scientists, on the detrimental effects of PCBs. Later Dr. Risebrough said he had been misquoted in some newspaper stories.

The Hartford Times story called PCB pollution a "new puzzle." Less sensational than the San Francisco articles, the Times gave an account of PCBs being found in the environment and the studies under way to determine their biological effects. This article, says Dr. Risebrough, tends to clear PCB of blame.

DSW 343976

STLCOPCB4096864

Articles generated by the Wisconsin DDT hearings generally discussed PCB as an interfering substance discovered in scientists' search for DDT in the environment. Dr. Risebrough said at the hearings that there was no proof at the moment that PCB alone can cause thin eggshells, one of the phenomenon that he had discovered in studying the declining population of the peregrine falcon.

LEGISLATION

Question 1

Are there any Federal/State/local laws under which the use or discharge of Aroclors could be prohibited?

Answer:

No existing Federal, State, or local laws prohibit the discharge of Aroclors. However, in a number of states the basic water pollution control legislation is so broad that state agencies can prohibit chemicals, deemed necessary, from being discharged.

Question 2

Is the DDT and the PCB problem related?

Answer:

We are not a manufacturer of DDT or other chlorinated hydrocarbon pesticide and, therefore, have no knowledge of the seriousness of the charges against DDT other than what has been so widely publicized on TV, in the press and in technical journals. To the extent that both DDT and PCB are chlorinated hydrocarbons, then there is a similarity. They are sufficiently different in their chemical structures, however, that it would be entirely wrong to assume that both behave in the same way in the environment. There is another and more obvious difference. DDT and other chlorinated hydrocarbon pesticides were specifically designed for a job that obviously leads to their being scattered in wide spread fashion across the countryside. Rain, birds, wind, insects further scatter these pesticides in an uncontrollable manner. PCBs are not used in this fashion and

DSW 343977

STLCOPCB4096865

Monsanto has never sought to promote this. This, we believe, is an important distinction that should not be overlooked if DDT and PCB are linked as a common pollutant of the environment. To our knowledge PCBs have never been identified in the absence of DET or other chlorinated hydrocarbon pesticides.

Question 3

Could it be PCB that's causing the environmental problems and not DDT?

Answer:

We believe that present-day GLC and mass spectrometric techniques are sufficiently accurate to be able to differentiate between DDT, related pesticides, their metabolites and PCB.

Question 4

What authority do State and local governments have in banning/controlling the use of PCBs.

Answer:

They do have authority to ban or control use of any substances they consider harmful.

EFFLUENT AND ITS CONTROL

Question 1

How do I dispose of Aroclor 1254/1260, etc. effluent from my plant?

Answer:

We would suggest collecting all process effluent, equipment washings, tank or drum washings and then regularly taking to the nearest toxic materials dump. You may also be able to use a sanitary land-fill if permits are issued for this in your locality. We don't recommend feeding this material to local sewage treatment plants or taking out to sea in drums for dumping. These methods do not

solve the problem of contamination. We are working on the disposal of these materials by incineration and biodegradation. Our work in these areas has not yet reached the stage where we can offer practical suggestions. It is of interest to note, however, that research is underway to find catalysts to make DDT self-destructive. The possibility exists that we could find catalysts that would destroy PCBs in settling tanks constructed to catch all your effluents.

Question 2

Can I test my effluent to see ^{that} ~~if~~ my effluent has no Aroclor 1254, etc.?

Answer:

Yes. Analytical equipment is available that can do this if the proper technique is used. The basis of the method is GLC or gas liquid chromatography. Are you or anyone in your company familiar with this? Do you have GLC equipment? If you do, we can send you a description of a method that could identify PCB. If not, there may be a good analytical testing laboratory in the vicinity where you could send samples and rely on the results if you want to test your effluent.

Question 3

What is a "safe" PCB level for effluent leaving my plant?

Answer:

As our letter points out, parts per million (ppm) and parts per billion (ppb) have been mentioned in the published articles. There is still a lot of doubt as to how absolute any quoted values are. To bring this into the realms of reality, this definition of ppm and ppb may help clarify things.

To give you a practical example, the escape of one-two gallons per day could lead to samples in a stream beside the plant showing 10-30 ppb on analysis.

Question 4

You must have quite a control problem at your plants--I would think Monsanto's Aroclor plants are the major polluters--how are you handling control?

Answer:

The Aroclor products we make to sell at a profit, so economics dictate maximum housekeeping, minimum losses. The Aroclor process is a "dry process" or closed system.

Question 5

How does Monsanto think Aroclors can get into the environment and cause so much pollution?

Answer:

Disposal, leakage from systems using it, spills, etc./

Question 6

If I analyze my effluent stream and find ppb there, how do I know it didn't come from air-borne contamination or was present in the process water that I pump from the XYZ river into my plant?

Answer:

Analyze water entering your plant and compare. There is a method available for sampling air.

Question 7

You seem to think from the tone of your letter that the source of pollution is from effluent disposal into streams. In my process, Aroclor 1254, 1260, etc. vapors escape. What precautions can I take to prevent (a) employee problems and (b) escape of vapors into the atmosphere?

Answer (7):

Articles on PCB interference with pesticides analysis have mentioned the possibility of loss to the atmosphere from vaporization when Aroclors are heated. We find this hard to believe and it warrants considerable investigation.

TOXICITYQuestion 1

If PCB is a danger to fish and birds, how about humans?

Answer:

The amounts being found in the environment are not considered a danger to humans or fish. The ~~whole~~ question on chlorinated pesticides relates ^{mostly} to birds.

Question 2

Are Aroclor 1254/1260, etc. more toxic than other Aroclors? Why?

Answer:

There is a difference in toxicity depending on degree of chlorination. This is not to say that higher chlorination is more toxic than lower chlorination. The alleged PCB problem is not really related to degree of toxicity.

DIFFERENCES BETWEEN AROCLORSQuestion 1*

In your letter, you state that Aroclor [®] 5060, 5442 and 5460 are not PCBs. What are they?

Answer:

They are chlorinated terphenyls.

DSW 343981

Question 2*

What's the difference between a chlorinated biphenyl and a terphenyl?

Answer:

A terphenyl has three benzenes linked together and biphenyl only two. They are, therefore, similar but different, just as naphthalene is different from benzene.

Question 3*

Why should PCB be an environmental contaminant and chlorinated terphenyls not?

Answer:

I don't think there is any positive answer on this and I can't give you any theories. However, I would emphasize that not all PCBs appear to be contaminants. Those such as Aroclor 1221, 1232, and 1242 haven't been identified in marine, aquatic and wildlife environments. Chlorinated terphenyls - at least those made by Monsanto - have not been identified in the environment either.

Question 4

Since you sell other PCBs beside Aroclor 1254 and 1260, why are they not found in the environment?

Answer:

One reason could be that they biodegrade and hence never build up to a level where they can be labelled persistent contaminants. Therefore, although you would find it in an effluent stream if you analyzed it just after you poured PCB into it, its absence when a river, for example, is analyzed downstream at a later date would indicate degradation by bacterial organisms.

We are actively working on this aspect of biodegradability in our laboratories at this time. Results of this type of work won't come to hand quickly but our preliminary work on PCBs of less than 54% chlorine looks promising.

DSW 343982

Question 5

In your letter, you make no mention of Aroclor 1262 and 1268. What is their status?

Answer:

It could be that their semi-solid/solid water insoluble nature means they are far, far less likely to become "mobile" contaminants. It could be that their structural differences from Aroclor 1254 and 1260 are responsible for the apparent lack of a problem. In any event, they have not been identified by scientists in the environment and--believe me-- a lot of scientists seem to be looking for PCBs.

Question 6*

Both Aroclor 5460 and 1260 contain 60% chlorine. Why is one a problem (1260) and apparently not the other (5460)?

Answer:

A terphenyl has three benzenes linked together and biphenyl only two. They are, therefore, similar but different, just as naphthalene is different from benzene.

I would emphasize that not all PCBs appear to be contaminants. Those such as Aroclor 1221, 1232, and 1342 haven't been identified in marine, aquatic and wildlife environments. Chlorinated terphenyls--at least those made by Monsanto-- have not been identified in the environment either.

Question 7*

Does this PCB problem mean that you have discontinued efforts to get Aroclor 5460 approved by FDA?

Answer:

No.

DSW 343983

STLCOPCB4096871

Question 8*

Is the reason for not resubmitting your petition to the FDA for approval of Aroclor 5460 due to this PCB publicity?

Answer:

No.

Question 9

What's the problem then?

Answer:

We are bringing a new solid Aroclor plant on-stream in the next two-three months. We want to make sure it produces the same quality Aroclor 5460 we used in our feeding studies for the FDA. Once we're sure that's O.K. -- and we feel it will be -- then we'll get the petition moving again but FDA clearances do take time.

Question 10

Does this PCB publicity mean that FDA approval of Aroclor 5460 is not going to be obtained?

Answer:

We have no reason to think the two things are related. Aroclor 5460 is not chemically a PCB. The delay resulted from the need to set up certain analytical methods to satisfy FDA. This involved analytical instrumentation and is being completed now. It is my understanding we plan to resubmit our petition although I personally don't know the exact date.

CONTAINERSQuestion 1

Joe Doe buys all my used Aroclor drums without me having to wash them. I get \$3.00 a piece. I can't afford to wash them out. Even if I did, what would I do with the washings?

(Question 1 con't)

What should I do? Should I tell Joe Doe? Will Monsanto take them back or pay me \$3.00 plus my costs to take them to a dump?

Answer:

Don't have an answer at this time. We just don't know.

APPLICATIONS

Question 1*

Could Aroclor 1254/1260 escape from my sealant/adhesive/coating whatever into the environment?

Answer:

This will depend entirely on the final use to which your product is used--its ultimate disposition.

Question 2*

My product X contains Aroclor 1254/1260. What should I tell my customers?

Answer:

Tell your customer--We want to advise you of a possible environmental problem. Without knowing what your customer does with product X, this is hard to answer. (We would say that it would not seem wise to use Aroclor 1254 or 1260 for keeping dust down on the roads, for use in dental sealing compounds or as carriers for pesticides.)*

*Only if you suspect or are told this is what the application is.

Question 3

Does Monsanto intend to continue manufacture of Aroclor 1254/1260, etc. ?

DSW 343985

STLCOPCB4096873

Answer (3):

I have been given no indication otherwise.

Question 4*

Should I look for replacement for Aroclor 1254/1260, etc. ?

Answer:

I think only you can decide this. How easy would this be for you? Do you have any other replacement product in mind?

Question 5*

Does Monsanto have replacement products for Aroclor 1254 and 1260?

Answer:

As you know, we have over eighty plasticizers in our line and there's quite a bit of product interplay so it is possible that there is another product in our line that might replace them. What resin do you use? Perhaps we could look at these resin/plasticizer Selector Charts in the back of the Blue Book. I've got it with me.

Question 6*

Is Monsanto working on replacements for Aroclor 1254 and 1260?

Answer:

These research fellows are always busy on things like that. To some people Aroclor 1254 and 1260 have draw-backs.-- quite apart from present publicity on PCB. Aroclor 1254 is fairly volatile. Aroclor 1260 is very viscous and difficult to handle. For polysulfide sealants, for example, the technical people in St. Louis have just sent us data on products that will behave better than Aroclor 1254 in polysulfide sealants. Maybe there's something here for you to look at. Let's go over it.

DSW 343986

STLCOPCB4096874

Monsanto

Monsanto Company
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166
Phone: (314) 694-1000

June 1, 1970

Dear Customer:

You have received our letter mailed February 27, 1970 notifying you of the allegations that certain polychlorinated biphenyls (PCBs) had been found in the environment and were contaminants. Since that time other reports concerning PCBs have been published. An examination of the PCB matter has indicated that their use in synthetic resin compositions may be a source of the alleged environmental contamination.

Monsanto has sold PCB-containing materials under the trade name of Aroclor®. These Aroclors® included:

Aroclor® 1232
Aroclor® 1242
Aroclor® 1248
Aroclor® 1254
Aroclor® 1260
Aroclor® 1262
Aroclor® 1268
Aroclor® 4465
Aroclor® 1100 Series
Montar® 1

Toluene or xylene blends of the above products also contained PCB.

DSW 343987

STLCOPCB4096875

Page 2
6/1/70

In review of the allegations which have been made concerning PCBs, and being a concerned and responsible member of the world community, we have come to a decision to discontinue the sale of PCB-containing products for modifier and plasticizer applications effective August 30, 1970.

Recognizing that this action will result in research effort on your part to find adequate replacements, we have prepared a series of data sheets outlining suggested alternatives for most applications. Copies of the report for your application may be obtained by calling the regional office closest to you as shown on the attached sheet.

We urge that you consider initiating now any necessary work on your part to effect the change to a new material. We stand ready to assist you in any way possible.

Very truly yours,



W. E. Schalk
Director of Sales
Plasticizers

ek

Attachment

DSW 343988

STLCOPCB4096876

MONSANTO COMPANY
REGIONAL SALES OFFICES

Akron Marketing & Research Center
260 Springside Drive
Akron, Ohio
(216) 666-4111

Chicago Sales Office
3158 Des Plaines Avenue
Des Plaines, Illinois 60018
(132) 296-6688

Everett Plant
Everett Station
Boston, Massachusetts 02149
(617) 387-5010

New York Sales Office
277 Park Avenue
New York, New York 10017
(212) 922-4111

St. Louis Sales Office
800 North Lindbergh
St. Louis, Missouri 63166
(314) OX 4-1000

Wilmington Sales Office
2005 Concord Pike
Wilmington, Delaware 19803
(302) OL 8-6531

DSW 343989

STLCOPCB4096877

DISTRIBUTORS

A list of our distributors and their regional offices is attached. The letter that was sent to the head offices of the distributors on 5/25/70 is enclosed.

DSW 343990

STLCOPCB4096878

AMERICAN MINERAL SPIRITS COMPANY

Baltimore, Maryland

Charlotte, North Carolina

Conshohocken (Philadelphia), Pennsylvania

Miami, Florida

Palatine (Chicago), Illinois

Plainfield, New Jersey

Providence, Rhode Island

Tucker (Atlanta), Georgia

DSW 343991

STLCOPCB4096879

CENTRAL SOLVENTS & CHEMICALS COMPANY

Allegheny Solvents & Chemical	Pittsburgh, Pennsylvania
Amsco Solvents & Chemical	Cincinnati, Ohio
Buffalo Solvents & Chemical	Buffalo, New York
Central Solvents & Chemical	Santa Fe Springs, California
Central Solvents & Chemical	San Francisco, California
Central Solvents & Chemical	Portland, Oregon
Central Solvents & Chemical	Kent, Washington
Dixie Solvents & Chemical	Louisville, Kentucky
Hoosier Solvents & Chemical	Indianapolis, Indiana
Missouri Solvents & Chemical	St. Louis, Missouri
Missouri Solvents & Chemical	Kansas City, Missouri
Ohio Solvents & Chemical	Cleveland, Ohio
Texas Solvents & Chemical	Dallas, Texas
Texas Solvents & Chemical	Houston, Texas
Toledo Solvents & Chemical	Toledo, Ohio
Western Eaton Solvents	Detroit, Michigan
Wisconsin Solvents & Chemical	Milwaukee, Wisconsin
Wolverine Solvents & Chemical	Grand Rapids, Michigan
Southern Solvents & Chemical	New Orleans, Louisiana

DSW 343992

STLCOPCB4096880

GREAT WESTERN CHEMICAL COMPANY

Portland, Oregon

Richmond, California

Seattle, Washington

DSW 343993

STLCOPCB4096881

May 25, 1970

You have received previous communications from us regarding the allegations that certain polychlorinated biphenyls (PCBs) had been found in the environment and were contaminants. Since that time, other reports concerning PCBs have been published. An examination of the PCB matter now indicates that their use in modifier and plasticizer applications may be a source of the alleged environmental contamination.

Monsanto has sold PCB-containing materials under the trade name of Aroclor®. These Aroclors® included:

- Aroclor® 1232
- Aroclor® 1242
- Aroclor® 1248
- Aroclor® 1254
- Aroclor® 1260
- Aroclor® 1262
- Aroclor® 1268
- Aroclor® 4465
- Aroclor® 1100 Series
- Montar® 1

Toluene or xylene blends of the above products also contained PCB.

DSW 343994

STLCOPCB4096882

In review of the allegations which have been made concerning PCBs, and being a concerned and responsible member of the world community, we have come to a decision to discontinue the sale of the above PCB-containing products for modifier and plasticizer applications effective August 30, 1970.

We will notify our direct customers using the above products of this decision by June 1, 1970. As a distributor of these products, it would seem appropriate that you follow the same course of action at as early a date as is feasible. A record should be kept of all customers notified, along with the dates on which the letters were transmitted.

Recognizing that this action will result in considerable effort to define replacement products on your part and on the part of your customers, we have prepared data sheets outlining suggested alternatives for most applications. Copies of these sheets for your use and for the use of your customers will be sent to you and to your regional offices prior to June 1. Additional copies may be obtained from the appropriate Monsanto regional office. A list of these sales offices is enclosed with this letter.

We regret the work that this action will create for you. However, as a responsible supplier, we feel that we have a duty to keep our customers informed on matters concerning the safe handling and use of our products. We appreciate your support in this matter. As in the past, we stand ready to assist you in any way possible.

Very truly yours,

W. E. Schalk
Director of Sales
Plasticizer---

DSW 343995

/dbw