

INSTRUMENT OFFICE MEMO



AT Assonet

DATE February 16, 1970

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AT New Haven

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SUBJECT POLYVINYL CHLORIDE - CURRENT AWARENESS

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(38) Polyvinyl-Chloride Current Awareness

(39) PVC Current Awareness

Attached are abstracts from the following sources:

1. PLASTICS INDUSTRY NOTES 4 no. 1, February 9, 1970.

2. CHEMICAL HORIZONS, January 22 & 29, 1970.

Also attached are the following news items:

1. How goes liquor in PVC? MODERN PACKAGING, January 1970.

2. GE switch saves \$30,000. MODERN PACKAGING, January 1970.

3. Today's explorers take their armchairs with them into the jungle. PLASTICS & RUBBER WEEKLY, January 2, 1970.

4. ABS/foam pram shell now in production. PLASTICS & RUBBER WEEKLY, January 2, 1970.

5. Air Reduction hopes to sell division making plastics and chemicals. WALL STREET JOURNAL, February 11, 1970.

Please advise if you want copies of the abstracted articles and we will be glad to supply.

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Plastics Disposal Problem Looms Bigger and Bigger
 Don't expect the field of enzymology to soon eliminate the problem of disposability of plastics. At least that's the word from an expert in the field, Dr. Brian R. Rabin of University College, London. Speaking at the Chemists Club in New York recently, Dr. Rabin acknowledged the tremendous plastics disposal problem existing, noted that it will continue increasing as production and use of PVC bottles burgeon in the years ahead, and pointed out that from a practical standpoint both technically and economically, there's not much enzymology can do about destroying unwanted plastic products. He said that polyethylene pipe, for instance, can be laid underground, dug up some 20 years later and still show no major signs of destruction—except maybe where the teeth of a groundhog have been at work. "Perhaps we ought to cultivate groundhogs," Dr. Rubin noted wryly.

NBS Study Warns of PVC Hazards A report from the National Bureau of Standards Building Research Div analyzes the effects of heating PVC cable insulation. The conclusion: Insulation goes through two stages of decomposition, the first is potentially hazardous, yet does not give the smoke warning of the second stage. In the first stage—occurring at about 450 F—the material releases gaseous hydrogen chloride. The gas forms white acid vapor fumes when exposed to moisture in the air. Black smoke does not appear until the insulation reaches 650 F. The HCl is considered dangerous at levels of 1000-2000 parts/million. In the 18 cu ft test chamber used by the NBS, the HCl level reached 1600 parts/million in just over six minutes.

Consumption of Plastic Pipe Should Increase 20% in 1970 High growth rate is expected to be maintained for plastic pipe—one of the fastest growing segments of the industry. Plastic tubular goods and fittings next year are expected to be consumed at a level approaching 560 million lb, up from an estimated 466 million lb in 1969, according to calculations of a leading plastic pipe producer.

The 1970 equivalent dollar sales of plastic pipe, including conduit and duct, at the manufacturing level will account for nearly \$290 million, an increase from an estimated \$250 million in 1969, according to Phillips Products Co., Inc., Bartlesville, Okla. The 20% growth rate in pounds is equivalent to a 16% growth rate in

gross revenues. Polyethylene, ABS and styrene pipes will continue to account for most of the plastic pipes sold. Most progress should be made in plastic pipe applications for homes, office buildings, industrial developments, municipalities, farms and utilities.

Vinyl Sales Climb Forecast For 1970—Sales of domestically produced PVC should hit a new high of about 2.7 billion pounds in 1970, compared to the more than 2.6 billion pounds the industry is expected to sell in 1969, according to B. F. Goodrich Chemical, Cleveland. This represents a 5% growth rate which is slightly lower than the 1968-69 estimated 8% growth rate.

Biggest factors in the 1969 to 1970 increase in sales, should be the increasing use of vinyl in construction, packaging—including expected broad use in bottles for foodstuffs—and automotive uses.

The current year provided some clarification of the supply-demand situation for vinyl chloride, basic building block for PVC. The anticipated monomer oversupply problem just never materialized, according to BFG. There was even an unexpected shortage of vinyl chloride monomer in Europe, and this took up whatever slack existed temporarily in this market. Though prices for both vinyl chloride monomer and PVC still remain at a low level, there was some firming, especially in PVC, during 1969.