Of PCB Found in Human Tissue

A report released last week by the National Institute for Occupational Safety & Health tends to confirm some of the worst fears expressed about polychlorinated biphenyls. Contained within the report is a study that shows a high percentage of Americans have measurable PCB residues in blood plasma and fat tissue.

According to NIOSH, recent studies show that PCBs, in amounts greater than 2 parts per million, were found in 198 of 637 (31 percent) samples of human fat tissue. A general population in eighteen states and the District of Columbia was used for the testing.

Moreover, PCB residues ranging up to twenty-nine parts per billion have been found in 43 percent of 616 plasma samples collected from volunteers in the Southeast.

The "known" toxic effects of PCBs in humans, says NIOSH, include an acne-like skin eruption (chloracne), pigmentation of the skin and nails, excessive eye discharge, swelling of eyelids and distinctive hair follicles.

Workers exposed to PCBs in the process of insulating cables, in the production of condensers and in the manufacture of chlorobiphenyls have experienced the skin disruptions along with digestive disturbances, edema of the face and hands, burning of the eyes, impotence and hematuria, reports NIOSH.

The agency estimates that 12,000 people are exposed to PCBs in their workplace environments. The majority of these are in capacitor production and in wax for investment processes.

PCB SALES RESTRICTED

PCBs are used in capacitors and transformers because they are chemically stable and fire resistant. Monsanto Company, the sole U'S producer of the product has restricted its sales of PCBs to "closed systems" such as those used by General Electric.

GE recently admitted to dumping PCBs in the Hudson river heightening concern that the toxic chemical was entering game fish and thus posed a further threat to human beings.

The toxic effects of PCBs were tragically illustrated in 1968 when 1,000 people in Japan ingested rice oil heavily contaminated by the chemical. Estimated at 1,500 to 2,000 ppm, the contamination apparently occurred when pipes immersed in the oil leaked PCBs.

Those affected reported cases of chloracne, skin discoloration and transient visual disturbances. In some patients, symptoms persisted three years after the exposure.

Infants born to poisoned mothers had decreased birth weights and showed skin discoloration because of PCB placental passage. Two stillbirths were also reported.

Weight and hair loss, liver disease and ulcers have been produced in monkeys fed PCBs, reports NIOSH. In additional studies, the reproductive abilities of minks has been severely affected.

The current Occupational Safety & Health Administration, Department of Labor standards for chlorinated biphenyls are 1 mg per cubic meter for 42 percent chlorine mixtures and 0.5 mg per cubic meter for 54 percent chlorine mixtures.

ACETOACET-ORTHO-ANISIDIDE—The Industrial Chemical Division of FMC Corporation has lowered the prices of its acetoacet-ortho-anisidide (AAOA) products by 10c. a pound. The new price is $1.75 a pound for truckload quantities. For tl. quantities, the price becomes $1.85 a pound.

The prices of acetoacetanilide and aceto*acet-ortho-toluidide will continue* at current price levels, according to the company.

The major application for AAOA is in the manufacture of yellow-pigment dyestuffs and printing inks.

BENZENE—Spot prices in the Gulf coast region continue to increase, with most sources now reporting a slim spread of 73c.-74c. a gallon. The major consumers have been buying heavily in recent weeks, probably in anticipation of higher benzene prices by January 1.

Actual demand for the product is still sluggish because of outlet products, such as polystyrene, which show little sign of strong recovery. As long as that condition persists, the major producers will he content to offer little spot material until the first of the year.

At that time, prices will probably rise 5c. a gallon and if that increase sticks, most look for another 5c. jump by April.

For the time being, as one source put it, "management wants the purchaser to keep inventories at a reasonable level, without overflowing the tanks."

COKE & COAL CHEMICALS—Benzene production took its largest monthly drop in August, falling off July's pace by 22 percent according to the latest Bureau of Mines report. Output of the other aromatic chemicals, via the cokeoven process, was also reduced in the month, while sales of crude light oil and toluene took large jumps.

Benzene production totaled only 4.3 million gallons in August, compared to 5.5 million gallons the previous month. Both figures, however, are far from the 6.7 million gallons turned out in August of last year.

Toluene production also took a significant slip, with 724,000 gallons made, or 19 percent less than in July. The July figure was 894,000 gallons. Going back to August of last year, the government report shows 1.3 million gallons were produced.

Xylene fared better than the other two aromatics, although it also dropped in production for the month of August. A total of 159,000 gallons were produced by the cokeo-

AROMATIC PRICE CHANGES

Week Ending November 7, 1975

ADVANCED

None

REDUCED

None

COMPARATIVE PRICE INDEXES

(1967-1969 average)

Last Week	Prev. Week	Last Month	Nov.9 1974
200.18	200.18	200.18	200.32

For Current Prices See Page 42.

(PURE AND TECH

ANTIFREEZE
LTL TO BUL
Distributors of Solvents
chemical
FOOT OF EMMET STREET, NE

SULFAME
CHICAG
Fine chemicals and related equipment and services
SINCE
4507
(312)

ACTIVE
COME
NRC
MONS 064588