

top of the news

Closer look at PCBs

Investigations into contamination from polychlorinated biphenyls—whose production may be banned by law—continued on several fronts last week.

Monsanto says it has undertaken an in-house health study of workers exposed to PCBs. Monsanto epidemiologists report preliminary evidence of seven cases of lung cancer among the 50 deceased workers included in a study of about 300 workers exposed to PCBs. In contrast, National Cancer Institute data indicate that 2.7 deaths out of 50 are normally caused by lung cancer.

But company officials emphasize that the evidence is only preliminary and that further research is under way to determine whether the cancer was related to nonworkplace exposures, such as tobacco.

Earlier, Mobil Oil reported seven cases of cancer (including two deaths) among 129 workers who had been exposed to PCBs at its Paulsboro, N.J., refinery (CW, Sept. 1, p. 13).

Monsanto's Saugeit, Ill., plant is the sole PCB manufacturing facility in the

U.S. Estimated 1976 production is 24 million lbs., well below previous annual averages of about 40 million lbs.

South Carolina Studied: The Environmental Protection Agency and South Carolina environmental officials have found levels of PCBs in fish in some areas of Pickens County, South Carolina, ranging from 0.1 to 110 parts per million. This compares with the Food and Drug Administration's recommended safety level of 5 ppm. for fish and shellfish. So the agencies have advised temporarily against eating fish taken from the South Carolina portion of Lake Hartwell. The state has been conducting a widespread effort to determine what waters contain the compound.

One "positive source" already identified by the agencies is Sangamo Capacitor (Pickens, S.C.), a division of Schlumberger subsidiary Sangamo-Weston (Springfield, Ill.). EPA's Atlanta division notes that recent tests indicated sediment in the first of two treatment lagoons at Sangamo Capacitor's plant contained 200 ppm. of PCBs and is considered the source of the 5-parts-per-billion PCB discharges in the plant's effluent. The agency

has asked Sangamo to bypass the first lagoon immediately.

EPA says it knew of the amounts in the effluent, but no action was taken against the Pickens plant because the company had taken measures in 1970-1971 to seal off the PCB operation and because the firm is in the process of replacing the first lagoon. In addition, three other probable sources are dumps near the lake that were once used by the firm for disposing of materials containing PCBs. Sangamo Capacitor declined to comment.

Mothers' Milk Analyzed: An EPA-sponsored survey showed samples of the fat content of mothers' milk taken in 10 states were recorded with traces of PCBs averaging about 2.1 ppm. While this is below the 2.5-ppm. provisional tolerance level set by FDA for PCB content in the fat in whole milk sold in grocery stores, health officials are concerned. The agency is expected to present results of a nationwide survey by year's end.

Two weeks ago the House of Representatives approved a toxic substances control bill carrying an amendment that would phase out PCB production within three years.

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2,3-Dimethylheptane	■	■
2,3-Dimethylheptane	■	■
2-Methylpentane	■	■

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3-Methylpentane	■	■
Normal Hexane	■	■
2,4-Dimethylpentane	■	■
Normal Heptane	■	■
2,2,4-Trimethylpentane	■	■
2,2,4-Trimethylpentane	■	■
Normal Octane	■	■
Normal Nonane	■	■
Normal Decane	■	■
Normal Undecane	■	■
Normal Dodecane	■	■
Normal Tridecane	■	■
Normal Tetradecane	■	■
Normal Pentadecane	■	■
Normal Hexadecane	■	■

	Research	Pure Tech.
	80%	90%
Cyclopentane	■	■
Methylcyclopentane	■	■
Cyclohexane	■	■
Methylcyclohexane	■	■
cis-1,2-Dimethylcyclohexane	■	■
trans-1,2-Dimethylcyclohexane	■	■
Isopropylcyclohexane	■	■

	Research	Pure Tech.
	80%	90%
OLEFINS		
Ethylene	■	■
Propylene	■	■
Isobutylene	■	■
Butene-1	■	■
trans-2-Butene-2	■	■
cis-2-Butene-2	■	■
Butene-2	■	■
2-Methylbutene-1	■	■
3-Methylbutene-1	■	■
2-Methylpentene-2	■	■
Paraffins-1	■	■
4-Methylpentene-1	■	■
cis-4-Methylpentene-2	■	■
trans-4-Methylpentene-2	■	■
4-Methylpentene-2	■	■
2-Methylpentene-2	■	■
2-Methylpentene-2	■	■
Hexene-1	■	■
Heptene-2	■	■
2,4,6-Trimethylpentene-1	■	■
2,4,6-Trimethylpentene-2	■	■
Octene-1	■	■
mixed Normal Olefins	■	■
CYCLOOLEFINS		
Cyclopentene	■	■
Cyclohexene	■	■

	Research	Pure Tech.
	80%	90%
BLENDES		
Butadiene-1,3	■	■
AROMATICS		
Benzene	■	■
Toluene	■	■
Ethylbenzene	■	■
ortho-Xylene	■	■
para-Xylene	■	■
meta-Xylene	■	■
1,2,4-Trimethylbenzene	■	■
Isopropylbenzene	■	■
n-Propylbenzene	■	■
Isobutylbenzene	■	■
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tert-Butylbenzene	■	■
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