

cc Mr. D. Wood
St. Louis

Many thanks for your
letter.

Mindia

Mindia Chemicals Limited
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July 11, 1974

Indian Standard Institution,
Manak Bhavan,
9, Bahadur Shah Zafar Marg,
New Delhi-11001.

Attention: Mr. Margharan Singh
~~Asst. Director, Section 1, Annexure~~

Dear Sirs:

Re: Chlorinated Biphenyls

Your ref: STDC 29/3-1
I.S:2834-1964 Specifications
for Shunt Capacitors

We have studied your above-referenced I.S. Specifications
for shunt capacitors and we feel that we should bring to
your attention any misinterpretations arising from the
large volume of data which the I.S.I. has summarized. We
have the following comments to offer:-

In the first paragraph of the letter, reference is made to
'aroclor' which implies that Monsanto's material is the only
PCB available in India. Bayer's 'clophen' and Prodec's
'pyralene' are also marketed in this country in large
quantities. However we would suggest you use the word
polychlorinated diphenyls' instead of brand names.

In the proposed wording under "WARNING" a suggestion is
made that sawdust contaminated with PCB's should be
burned. Please note that proper destruction will not occur
unless the temperature exceeds 800°C.

In the Annexure Section 1 "POLYCHLORINATED BIPHENYLS", the
trade mark 'Therminol' should not be included since the PCB
heat transfer fluids under this trade mark have been
discontinued. Also, please note that the trade marks
'Chlorextol' and 'No-flamol' are no longer used since Alis
Chalmers and Wagner Electric no longer use polychlorinated
biphenyls. The reference to the trade mark 'Phelochlor'
should read as 'Kanechlor'. This is the Japanese trade name
and since last September it is no longer produced in Japan
owing to a ban on PCB's.

MONS 094886

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As regards Therminols, Monsanto in the past marketed the Therminol FR range of heat transfer fluids which were based on PCBs. Recognising that this particular application was potentially leading to an escape to the environment, we withdrew the FR range of heat transfer fluids. We continue to market heat transfer fluids under the trade mark "Therminol" which are not PCB-based. Under the circumstances, we would suggest that you delete the word 'Therminol' under Section 1.

In Section 3 under "APPLICATIONS", it is Monsanto's policy as a social objective to restrict the sale of PCB's dielectric application in transformers and capacitors only. This goes beyond the the recommendations made by the member nations of OECD who have agreed to restrict their sales to dielectric applications, as well as to hydraulic fluids for use in mining operations and as heat transfer fluids in applications not related to human food processing. To our knowledge the remaining applications mentioned in Sec. 3 have been discontinued since these are recognised as open systems where possibilities of an escape of PCB's to the environment exist. We would also like to point out our attitude in using the terminology of referring to PCBs. The persistence of these compounds in the environment is related to the level of chlorination. Since last year we are marketing our Aroclor 1016 capacitor fluid which is a lower chlorinated biphenyl with a higher chlorinated isomer content closely limited and controlled. International specifications established by CIGRE reflect this differential between low and high chlorinated biphenyls and we would like to draw your attention that these specifications objectively avoid the all encompassing term polychlorinated biphenyl and reflect the differences in chlorination content.

We hope our comments will be helpful. We are enclosing along with this letter the following which should give you a fund of information to draw a proper specification.

"Chlorinated Biphenyl and Related Compounds"
from Encyclopedia of Chemical Technology
NEMA Official Standards Proposal
Polychlorinated Biphenyls and the Environment,
Interdepartmental Task Force on PCBs
Decision of the Council on Protection of the
Environment by Control of Polychlorinated
Biphenyls, (13 February, 1973).

Yours Faithfully,


V.L. Nargan
Sales Manager - Chemicals

vln/jr