Aroclors

c.c. G.D. Bowden

DVMR/AMW

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2nd February, 1967

For the attention of Mr. Fuller

Dear Sirs,

With reference to your recent enquiry for information concerning the safe handling and toxicology of Monsanto Arocolors I have pleasure in sending herewith copies of:-

1. Technical Bulletin No. C1/2 "Arocolor - Chlorinated Diphenyl - Physical & Chemical Properties and Applications".

2. Toxicology and Safe Handling of Monsanto Arocolor - Chlorinated Diphenyl.

You will note that like so many other chlorinated hydrocarbons the Arocolors can cause damage to the liver as a result of prolonged exposure to the vapour and to the liquid. To the best of our knowledge no fatality has ever been attributed to a chlorinated diphenyl, but in view of the chronic action on the liver we advise that contact with the vapour and liquid must be kept to a minimum

I understand that your interest is in the manufacture and use of hot melt adhesives containing Arocolor.

Cont/d.

In preparing such adhesives we would advise you to use a closed vessel fitted with a reflux condenser: the charging port of the vessel should be kept closed except when taking samples, and the molten adhesive run off from the bottom. A stirrer will almost certainly be required and its shaft should be sealed by a suitable gland. The vent from the reflux condenser should be led to the external air to a height such as to prevent entry into other buildings. Carried out in this way there should be very little loss of Aroclors. An exhaust fan should be provided with ducts to the charging and discharging ports.

In using the hot melt adhesive the melting pot should be similarly arranged to the vessel used for making the adhesive, and as far as possible one should avoid situations in which the hot vessel is open to the air for more than a few minutes. In the area where the hot adhesive is being used, there should be a well ventilated hood as close as possible over the work itself, e.g. in the continuous book binding process the hood would be over the application and cooling area of the conveyor.

These general precautions are particularly desirable if the processes are to be carried out in large workrooms where many other jobs are going on and consequently many workmen exposed to the vapour throughout the working day. It would, of course, be better to segregate the operations of the hot melt adhesives so that the ventilation problem is simplified.

Yours faithfully,
MONSANTO CHEMICALS LIMITED

D.V.N. HARDY
Research Services Manager.

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