



British Rubber Manufacturers' Association Ltd.

Bulletin No. 20.

September 21st 1977.

To All Members:

Indulines/Nigrosines

In May of this year information was received from Williams (Hounslow) Ltd., manufacturers and suppliers of dyestuffs chemicals, which indicated their intention to cease the manufacture of indulines and discontinue the marketing of the product. This decision had been taken because it was discovered that in the manufacturing process there was formation of a chemical impurity, which was identified as the aromatic amine 4-aminodiphenyl (also known as 4-aminobiphenyl, or xenylamine). This amine is known to be one of the small group of aromatic amines which are recognised as being human bladder carcinogens, and within this group it is generally accepted that 4-aminodiphenyl has a high potency. It has been detected in indulines at a level of approximately 0.75%. Such a level of impurity must, on the available evidence, be regarded as a significant hazard to those required to handle indulines, and since the process chemistry involved does not appear to make it possible for the impurity to be eliminated, the decision to withdraw the product from the market is really inevitable. Historically indulines and nigrosines have been manufactured because of their specific chemical and colouring characteristics. Each of these classes of dyestuffs has quite distinct colouring properties which has rendered them eminently suitable for a wide range of colour applications. Over the many years which these products have been manufactured, numerous formulations and blends have been established, and a number of different brands for these mixtures have also been used. The names "Nigrosine" and "Induline" have been quite freely interchangeable when used to describe mixtures and blends.

Induline dyestuffs have, in fact, had very limited applications in the rubber industry. They have been more extensively used in printing and as leather dyes. Small quantities however, have found their way into the rubber industry where the only significant usage appears to have been in the manufacture of some tyre paints.

On the evidence it would seem to be extremely unlikely that any hazardous exposure to 4-aminodiphenyl could have resulted from use of tyre paints having an induline formulation, but if any manufacturer has in the past used induline/nigrosine dyestuffs for this manufacturing purpose, or for any other industrial application, it is recommended that further advice should be sought from this Research Unit or from the local Employment Medical Advisory Service.

FC

4.A.D.P.

DO NOT DESTROY



Ault & Wiborg Ltd

20 March 1987

Bond Avenue, Bletchley
Milton Keynes MK1 1JD
Telephone: Milton Keynes 76331
Telex: 825181 Wiborg G
Facsimile: 0908 79187

our ref: PC/EMH

your ref:

date: 19th March, 1987.

Mr. W. Miles,
General Officer,
Society of Graphical & Allied Trades '82,
SOGAT House,
274/288 London Road,
Hadleigh,
Essex,
SS7 2DE

Dear Mr. Miles,

I was asked to comment on the changes that have been brought about in the raw materials used for newspaper ink formulations with particular emphasis on the period covered by the Leon report.

During this period there have been three changes of note. The first, and probably most significant was the invention of low misting ink, and its subsequent acceptance as a viable product in 1967. This led to a reduction of over 60% in the airborne contamination produced by fast newspaper presses. The second was the discovery in 1977 that the induline oleate dyestuff used as a blue/violet toner in newspaper inks contained a small proportion (less than 1%) of amino diphenyl. This material (4ADP) was thought to be associated with papilloma of the bladder in workers coming into contact with the 100% pure material. Although not thought to be a problem to users of the dyestuff, this was withdrawn from general use in the industry.

In January 1986, we, as a Company, agreed to stop purchasing mineral oils which were classified as requiring labels bearing a skull and crossbones, and to change to those requiring only a St. Andrews Cross. The change was possible because the characteristics of the oil eventually produced by a refinery are directly attributable to the conditions and methods of refining, and it was possible to select and obtain oils from refineries where the refining process produced oils with generally lower levels of aromatics and consequently lower levels of BaP.

Continued. . . .



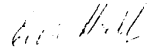
Registered in England No. 259042
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1 Farm Yard Windsor
Berkshire SL4 1TZ

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Mr. W. Miles,
General Officer,
Society of Graphical & Allied Trades '82.

The oils used currently and during 1986 were all fully tested for BaP content and showed levels which varied from 4 to 7 parts per million. (mg per kg) During this period newsinks were also randomly tested and gave levels varying between 1.5 and 5 ppm BaP. During the previous two year period, the oils varied from a minimum of 4 ppm up to 10 ppm, while random tests on the inks gave results varying from 3 to 8.5 ppm (BaP).

Yours sincerely,



P. Casey
Technical Director/Chief Chemist

Dictated by Mr. Casey but signed in
his absence.

20 JUN 1991

**Manders
Manders
Manders
Manders**

Printing Inks Division

Mrs Horwood,
SOGAT House,
274/288 London Road,
Hadleigh, Essex SS7 2DE

Mander Kidd (United Kingdom) Ltd.

P.O. Box 13, Old Heath Road
Wolverhampton WV1 2RS

Telephone (0902) 53122
Telex 338354
Fax (0902) 57461

21 st June 1991.

Dear Mrs. Horwood,

This is to acknowledge your letter of 12th June. I am sorry for the delay in responding, your letter arrived while I was on holiday.

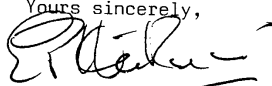
In common with other Ink Makers, Manders used small quantities of Induline Blue. This was added in the form of a paste concentrate in oil and oleic acid to tone black Letterpress Inks.

It is my recollection that it was the Manufacturers of the Induline Blue Base, who withdrew the material owing to risks associated with its manufacture. As a consequence therefore its use in ink making completely ceased at that time. I am not sure whether I have a note of the exact year when it was stopped, but I am sure that Mr Seabrook can furnish that information.

Manders' sales records are not kept for more than a few years, consequently we could not with certainty determine the period during which a specific printer was likely to have been supplied with induline toned ink. Perhaps if we might have the name of the Printing House and printing process involved we could be more helpful.

I have passed your letter to our Technical Director and we will confirm to you the result of our investigation without delay.

Yours sincerely,



E.P. Hickman,
Technical Advisor.



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Chancery Lane
London WC2A 1SA
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Telegrams:
Ushawalker London W.C.2
Cables: Ushawalker London

Your ref:

Our ref: PFW/SMC.

6th May 1977

J.A. Selby Esq.,
National Assistant Secretary,
N.A.T.S.O.P.A.,
Caxton House,
13-16 Borough Road,
St. George's Circus,
LONDON SE1 OAL.

Dear Mr. Selby,

For your information, I am enclosing a copy of the letter we received last Friday, 29th April 1977, from Messrs Williams (Hounslow) Ltd., concerning their decision to cease manufacture of Induline Dyes, which we have used in the News Ink departments at our Marshgate Lane and Heywood (Lancs) factories for many years.

I think the letter is self-explanatory and indicates that the health risk, if any, to those of our employees who have handled Induline Dyes has been very slight.

It is, of course, our intention to stop using these Induline Dyes and to explain the position, via our factory Health and Safety Committee to these employees and to say to them that we will be consulting with NATSOPA to agree what medical checks etc. are appropriate, such as the twice yearly urine tests suggested in Messrs Williams letter.

contd.....

Factories Marshgate Lane London E15 01-534 8751 Seymour Street Heywood Lancs Haywood 68201/5 Kirkintilloch Glasgow Kirkintilloch 4231
Depots Weston-super-Mare Wetherby West Bromwich
Registered Office Chancery House Chancery Lane London WC2A 1SA. Registered No. 103246 England



CONTINUATION

2.

I have spoken to Mr. David Hutchinson about the matter in relation to our Marshgate Lane factory and am also sending a copy of Messrs Williams letter to him.

As far as our employees at Heywood are concerned, it would be kind if you could let me know whether you feel it would be appropriate for me to contact Mr. Blakey direct or whether, as it is a Health and Safety matter, you would like to pass to him the necessary information yourself.

It may be that the Industry Joint Health and Safety Committee is the correct vehicle for the joint consultation on what medical tests etc. should be done but, if this is not practical, then I would appreciate your guidance concerning the most appropriate way in which to consult with your Union on this matter.

Yours sincerely,

P.F. Walker
Managing Director

copy: Mr. C.D. North-Lewis
Mr. D. Hutchinson.

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England
Registered in England 203007
Telephone 01-870 7700
Telex 33200
Telegrams WILL and HOUNSLOW

DCPC/JR

22nd April, 1977

For the Attention of T. A. Cox

Usher Walker Ltd.,
Chancery House,
Chancery Lane,
London WC2A 1SA.

LETTER FROM

WILLIAMS LTD, HOUNSLOW.

- Supplier of Dyestuff to
the ink making industry.

Dear Sirs,

INDULINES

The purpose of this letter is to advise you that we have taken the decision to cease manufacture of Indulines and that we shall therefore be unable to continue supplying you with this product. We regret any inconvenience the suddenness of this decision may cause you in the short term, but trust that when you have read our reasons for coming to this decision, you will appreciate that no proper alternative was available to us.

It is our normal practice to keep all our products under constant analytical review in order to ensure their safety. New analytical research techniques have enabled us to identify the previously unsuspected formation during manufacture of very small amounts of the compound 4 Aminobiphenyl (sometimes known as 4 Aminobiphenyl or Xenylamine, but which we shall call 4 ADP in this letter). Information over a number of years has established that 4 ADP is carcinogenic and that exposure to it, particularly over a long period of time and in high concentrations may lead to the development of a form of cancer known as papilloma of the bladder. After a detailed examination of our manufacturing process, it was found that formation of 4 ADP is inherent in the process chemistry and, although changes could be made in the manufacturing process which would reduce the amounts of 4 ADP produced, its presence could not be totally eliminated.

Research that has been carried out to date into the carcinogenic properties of 4 ADP relates to persons with long periods of exposure to 100% concentrations in the course of manufacturing processes. There is no reliable information on the effect of 4 ADP on persons such as our own employees whose contact has been only with concentrations of under 1%.

2.



Usher Walker Ltd.
22nd April, 1977

Against this background, where the hazard cannot be quantified we have decided to cease production of Indulines in order to avoid any possible hazard to any person coming into contact with Induline.

The amount of 4 ADP present in Indulines has been such that it is our view that the risk to anyone handling Indulines is very small. Nonetheless, your employees may have handled the product over long periods and may be at slight risk. Proper medical checks can be carried out at regular intervals on all persons who have been in contact with Indulines and early detection of a tumour provides the best possible opportunity for a full cure.

It is already part of our normal safety procedures to ask our employees to undergo twice yearly tests and we try to ensure that they keep up these tests even after leaving our employ. We feel that it would be a sensible precaution if your employees underwent such tests and we would be pleased to send you a copy of the letter we have given to our own employees if you wish.

We therefore consider it advisable to inform you of these matters in order that you can be in the best possible position to take all sensible precautions. We should be happy to give you any further details of medical testing techniques if you require.

We are urgently seeking a satisfactory alternative to Indulines and would wish to give you every assistance in finding a suitable alternative compound for your industry.

Yours faithfully,

D. C. P. Carey
Managing Director

Signed by R. W. Munkenbeck, Director, in the absence of
D. C. P. Carey