

A Question of Balance

New health and safety legislation is seen as a moral obligation by Melbourne company, GSB Chemicals.

As one of the few remaining 100 per cent Australian owned manufacturers for the printing and graphic arts industries, GSB Chemicals takes pride in its development of safety conscious products with an emphasis on low odour and low toxicity.

Although it was established in 1954 as a manufacturer of paint strippers and surface coating cleaners, GSB has had a long apprenticeship to the printing industry. Its affiliation began in the early '80s with the supply of solvent based products to ink and chemical companies in Australia. Over the past ten years, its dedicated team of print specialists has manufactured roller and blanket washes and developed a range of UV wash-ups for litho printing which are considered by users to be leaders in the field.

Not content with a background role, the company has now embarked on an intensive R&D program to develop further products based on vegetable oil extracts and raise its profile in the industry. Recently appointed chemical and technical manager Mladen Dugec believes there are two issues to be taken into consideration: "On the commercial side, we need to offer a full range of consumables to printers which will compete with those of the leading national suppliers. To fulfil our commitment to health and safety requirements, we need to be able to develop vegetable oil based products that work."

Safety at a Price

Dugec points out that most of the environmentally correct products available now do not perform well commercially "They slow down the make-ready on the press, resulting in greater sheet waste, and cause roller and blanket swelling. So whereas they are safe for printers, there is an additional cost associated with that safety in terms of production and consumables," he noted.

To address this problem, the team at GSB is taking a reverse approach. While the usual method is to blend various components until the right general properties are reached, using off-the-shelf components can impose limitations. In the GSB solution the press becomes the starting point, printers are questioned to determine their specific needs and the solvents are literally built from the molecules up. Where possible, raw materials are sourced in Australia to maintain control, because as general manager Tennyson Byrnes points out, different conditions in Australia to those in the USA or Europe necessitate an adaptation of imported printing technologies.

GSB's 42 years background in paint removal and associated surface cleaning to the aircraft, hardware, decorator and automotive industries, as well as to the printing industry has enabled the company to make the extensive industrial connections necessary to successfully implement such an approach. "Our aim is to provide a full range of press consumables that are value for money designed for Australian

conditions and, where necessary tailored to the individual needs of any press room, said Colin Benson, sales manager.

An Eye to the Future

As the recipient of a Collie Trust scholarship, Dugec visited the USA and Europe in 1993 to study waste management of printing chemicals. This has given him an insight into the direction of the industry in the future and demonstrated that each country is at a different level in product development and environmental legislation. Even with the current emphasis on implementing vegetable oil based substances, he estimates that it will be some five to ten years before these are in general use in the majority of printing companies.

"The safety issue is actually self-regulatory. There is a moral obligation on the supplier's part not to use poisonous or toxic materials in their products. If we did so, we would have to label the contents accordingly," said Dugec. "For the printer's part the choice is more personal. Straight solvents such as white spirit and X55 have been around for generations; they are cheap and quick to use but may be unpleasant to handle. While vegetable oils offer advantages such as no fumes and they do not dry out skin like straight solvents, they are currently expensive."

This is the area where GSB is concentrating its research efforts to come up with the safest product that costs the least and works the best.

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