

## Vytex to boost latex glove's image

Despite having emerged in the past couple of decades as arguably the most important of all healthcare products, and posting annual sales that run into millions of dollars, natural rubber latex (NRL) gloves continue to suffer from a stigma – one which is as stubborn as it is contentious.

"Mention NRL gloves and protein allergy comes to mind," said Sivanyana Moorthy, *Revertex Malaysia's* Head of Department, Technical and Purchaser, Natural Rubber Division. "Yes, it is an issue. Some people do have allergic reactions to latex, but does NRL deserve all the negative publicity surrounding it? I'm not sure. Many people are also allergic to avocado or peanuts and other things," he said, implying that the approach to the problem thus far could have been more constructive and less emotional.

Well, constructive one company has been. And it is a company from the US too, where some of the most "damaging" reports about NRL gloves have originated. Indeed, Atlanta-based *Vystar Corporation* is convinced it has the answer to put the entire issue to rest with its "Vytex, the new safe latex".

Through a proprietary process, the American company claims to be able to reduce protein content in NRL to "levels considered undetectable by the most widely used standard, hence potentially making it safe for use by most people who are allergic-protein sensitive". According to *Vystar*, Vytex is produced through a novel method that deactivates antigenic proteins in liquid NRL and involves the quasi-sequestration of these proteins. The Vytex scientific team has found that this

method alters the stereo-chemistry of the protein structure, thus reducing the ability to generate an immune response. Early results indicate that the method has no adverse effects on the physical and chemical properties of NRL used in the manufacture of dipped products and barrier properties may actually be slightly improved compared to untreated natural latex.

"From recent focus groups, the conclusion is that the perfect glove is a latex glove without the big worry about proteins," said William Doyle, President/COO of *Vystar*, explaining that the current synthetic alternative may not be quite the alternative, in respect of price as well as the properties of NRL (compound stability, high elasticity, tensile strength and unmatched tactility). He also offered a reminder that NRL is a renewable natural resource, meaning it is environmentally friendly and has no disposal issues, unlike gloves made of plastics.

Sivanyana and Doyle were speaking to PRA last month at the sidelines of the 3rd International Rubber Glove Conference and Exhibition of the *Malaysian Rubber Glove Manufacturers Association (MARGMA)* in Kuala Lumpur, Malaysia. *Revertex*, a division of UK-based *Yule Catto* and the world's largest producer of



"We are thrilled to be involved," said *Revertex Malaysia's* Sivanyana Moorthy

pre-vulcanised rubber lattices and post-vulcanisable latex compounds, had just signed a letter of intent to produce Vytex.

"What is exciting is that where previously manufacturers of NRL goods had to address the problem by leaching, now, with Vytex, the issue is tackled long before the latex becomes products like gloves, catheters, condoms or balloons," said Sivanyana. "And it is most gratifying that a company from the US, going beyond offering market feedback, has taken leadership to solve this issue with a Malaysian company."

Under the deal between the two companies, *Vystar* will not only undertake technology transfer but also co-market Vytex throughout the US. *Revertex* in turn will produce and sell the material to manufacturers of specific products, both among its existing customers as well as new ones.

"We are looking at sorting out all production matters by year-end and bringing the breakthrough product to market by the start of 2007," said Doyle. "Meaning to say that goods made from this new latex could be reaching users in a matter of months."

Asked about capital outlay for the project, he said: "It is not a situation where you need to buy more equipment. It's only going to require a little more effort to incorporate the technology and introduce a very small amount, percentage wise, of chemicals into the production of latex."

On choosing *Revertex* as a partner, Doyle said: "The relationship started about two years ago. We wrote to *Revertex* to request latex samples for our research. It developed from there. Yes, it's very important to find



William Doyle, President of *Vystar*, says that Vytex is a breakthrough technology for the natural latex glove industry

the right partner for the project." Added Sivanyana, "Actually, we were delighted to help. We were thrilled that a company in a key market was making efforts to resolve a major issue confronting the trade."

*Vystar* holds two US patents for Vytex, which was invented by CEO Travis Honeycutt. Formed in 2000, *Vystar* is a privately funded firm whose operations have focused substantially on the early-stage R&D, testing and commercialisation of Vytex.

In a paper presented at the *MARGMA* conference, Dolye outlined the potential benefits for the industry, including the reduction of costs by two or three times compared to non-latex gloves that were subject to high raw material prices. He also said that Vytex could be used by the US\$912 million examination glove; US\$291 million surgical glove and US\$384 million condom industries worldwide. He added, "Vytex's production in Southeast Asia makes it a highly viable alternative to untreated NRL as well as to synthetics."

When asked if there were any other R&D projects or technology to be brought to market the same way as Vytex, Doyle replied, "That will be the subject of the next interview. There's plenty more where that came from."