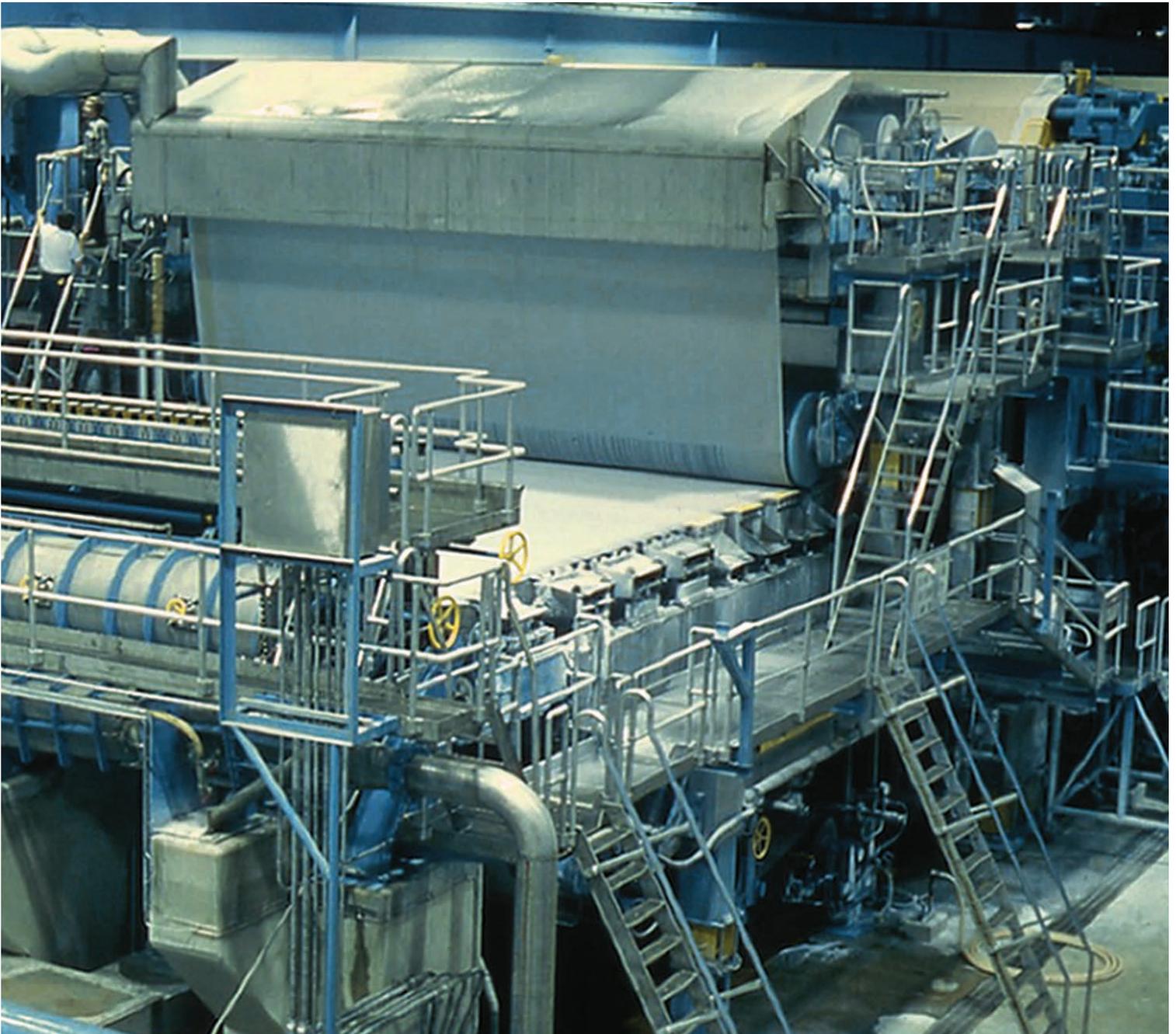


Solvent-based cleaner for the pulp and paper industry.

Buckman presents Busperse® 2727, a very effective low odor, low VOC, high flash point solvent-based cleaner for the pulp and paper industry.



While the paper industry's use of recycled fiber continues to increase, its quality continues to deteriorate. And as the number of different grades using recycled fiber continues to increase, so do the problems controlling the stickies that result.

Currently, the most efficient cleaners for stickies and coating components contain aliphatic hydrocarbons or terpenes, which have low flash points, high VOC's, and a strong odor. These solvents also have high costs and are subject to supply disruptions.

Hydrocarbon solvents

- Low flash point, more volatile products for better stickies control
- Odors, flammability, and high VOC's
- Increasing costs

Terpene solvents

- Very efficient cleaners
- Natural products
- Odors, flammability, and high VOC's
- Tight supply due to increasing demand
- Increasing costs

A better approach for solvent cleaners

The increased interest in biofuels has made available a number of agricultural based solvents, which may be used to replace the terpenes and aliphatic solvents we have traditionally used.

These new solvents are nonflammable, low odor, and have much lower VOC's. They are based on renewable resources that have a more stable supply and price structure than traditional solvents.

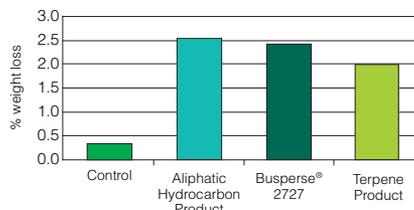
Agricultural solvents

- Efficient cleaners of stickies and other hydrophobic material
- Low odor, nonflammable, and low VOC's
- Increasing supply
- Steady to declining costs

Comparison of solvent products			
Product	Description	VOC's	Flash Point
A	Aliphatic Hydrocarbon Product	90%	140°F
B	Busperse 2727	18%	< 212°F
C	Terpene Product	90%	115°F

Cleaning wet felts filled with stickies

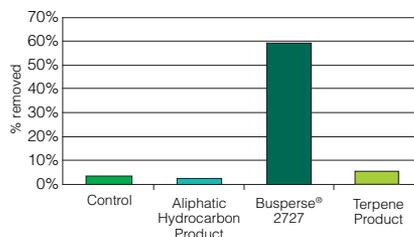
- Batch wash for stickies in a recycled tissue machine wet felt
- 100% recycled fiber
- No wet strength
- Solvent and alkaline batch wash



The combination of Busperse 2727 and an alkaline batch wash (Busperse 2036) gives excellent results in this key felt cleaning application.

Boilout of coater deposit

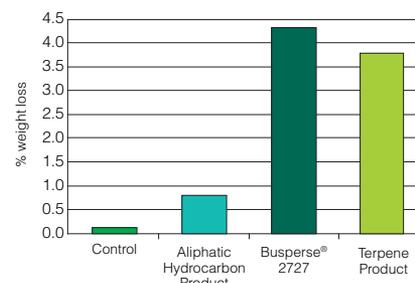
- LWC mill
- SBR latex
- Solvent product alone used in testing



Coater boilouts typically use terpene products. In the case of this coater system using SBR, Busperse 2727 clearly outperforms the other solvent products.

Dryer Felt Cleaning

- Deinked newsprint mill
- Solvent and alkaline batch wash



Here, the use of the solvent product or the alkaline product by itself does not completely clean the felt. The use of Busperse 2727 followed by an alkaline cleaner (Busperse 213E) gives superior performance compared to a program using an aliphatic hydrocarbon product followed by an alkaline product. Also, since Busperse 2727 is not volatile and has a high flash point, dryer cans do not have to be completely cooled.

Other potential uses for agricultural based solvents

- Asphalt removal
- Degreasing
- Uhle box deposit control
- Stickies control

Conclusions

Agricultural based solvents can perform as well as or even better than currently used hydrocarbon and terpene based solvent products. They are non-flammable and contain about 80% fewer VOC's than currently used products, and they have much less odor, a lower cost, and a more stable supply.

Find out more about Buckman's commitment to environmental stewardship. Call your local representative, or visit us online at buckman.com.

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Argentina +54 11 4701-6415; Australia +61 (2) 6923 5888; Belgium +32 9 257 92 11; Brasil +55 (19) 3864-5000; Canada +1 (877) 282-5626; Chile +56-2) 2944-1000; China +86-21) 6921-0188
India +91) 44-2648 0220; Indonesia +62) 21-2988 8288; Korea +82) 31-416 8991; Mexico +52 (777) 329 3740; Singapore +65) 6891 9200; South Africa +27 (31) 736 8800; United States +1 (901) 278-0330

Global Headquarters at 1256 N. McLean Blvd., Memphis, TN 38108, USA