



BULLETIN #1006-1

TECHNICAL BULLETIN

FIRE-BRAKE™ Foam Concentrate is Tire Fire Breakthrough

Until now, fighting tire fires has required huge volumes of water and extreme patience. A recent fire at an Australian tire storage depot, however, has resulted in a major discovery in the approach to these environmental disasters.

A Dramatic Effect

It took seven units from the New South Wales Fire Brigade and thirteen NSW Bush Fire Brigade units almost 24 hours and over 7.1 million gallons (27 million liters) of water to extinguish the fire at Kurnell, 12 miles (20 kilometers) south of Sydney. The NSW Bush Fire Brigade now believes the fire could have been controlled in less than three hours if a particular type of firefighting foam had been used. Designed for use in wild land (bush) fire control, the foam is also suitable for Class A fire situations — those involving wood, rubber and plastics.

Stuart Midgley, Fire Control Officer for the Sutherland Shire Council, began using SOLBERG® FIRE-BRAKE™ Class A foam concentrate after the fire, fueled by 30,000 tires, had been smoldering for 15 hours. Almost immediately, a spot which had been flaring throughout the night was brought under control with a 3/4" (19 mm) hand line, and the brigade was able to enter the site to begin separating tires and eliminating hot spots.

“Although we remained at the site for another seven hours, the breakthrough occurred with the use of FIRE-BRAKE at 8.00 a.m.,” said Mr. Midgley. “From that time on, it was simply a case of pulling apart the smoldering stacks and wetting them down. If we had used the foam in our first attack, I believe the fire could have been extinguished in three hours — the effect was that dramatic. The foam

acted as a super wetting agent. Where water previously ran off the tires, with the addition of FIRE-BRAKE foam concentrate it could be seen to penetrate the rubber.”

Saving More Than Time

Even a small reduction in the time spent fighting the fire can mean significantly less water usage and environmental damage. A carbonaceous residue, flushed out of the site by the millions of gallons of water used, posed a major threat to nearby waterways. Hay bales were brought in to soak up the residue.

Just as dangerous to the groundwater reserves was the use of salt water to fight the fire. At 132 gallons (500 liters) per second, any time-savings were crucial to prevent contamination. Early attempts to extinguish the fire with a fluoroprotein foam resulted in an



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algal bloom. Unlike this protein-based foam, which functions as a super fertilizer, FIRE-BRAKE Class A foam concentrate caused no damage to the waterways.

And, of course, says Stuart Midgley, any time saved in fighting the fire means less smoke and rubbish in the air. "Tire fires are characterized by the thick, dark smoke they generate. If we had been able to bring this fire under control earlier, we could have prevented extensive air pollution, not to mention the fear and trouble for evacuated neighbors."



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