

## Technical Summary

### 1. The ability not to seal dangerous punctures: -

Puncture Safe does not have any of the failings that previous and many present products have. Apart from drying and balling up in the tyre, the biggest failings of traditional tyre sealants in a high speed tyre, was the inability to seal small holes, but the ability to seal a large dangerous hole or cut, because they contained large chunks of chopped up rubber. Whereas Puncture Safe contains only tiny strands of coarse surface synthetic fibres that are stronger than steel when they interlock tightly together, but will only positively seal small holes caused by puncturing objects up to 6mm in diameter, but only in a hole that is in the crown of the tyre, and that is shrinking in size because there is no cord damage (rubber recovery), which is 95% of today's high speed punctures. Anything bigger, or in the sidewall, with or without cord damage, and the Puncture Safe fibres just slowly bleed through the hole, giving a controlled deflation, and usually with a halt or abrupt slow down in air pressure loss at the lower pressures of 10 to 15 psi (depending on cord damage) which prevents damaged rims, and helps the driver maintain control and possibly enabling continuation of the journey to remove the vehicle from a possibly dangerous location.

### 2. The ability to give full even coverage, throughout the whole inner tyre: -

In a high-speed tyre, traditional tyre sealants do not give 100% crown coverage. They usually only cover 65 – 85%, whereas Puncture Safe contains a very clever ingredient called Thixogel™ which is not a glue, but has similar abilities to glue by allowing the Puncture Safe formulation to cling evenly over the whole inner tyre surface. It does this when the lateral movement of the vehicle throws the excess Puncture Safe over the whole of the crown, then side-ways up the inner sidewalls of the tyre where the Thixogel™ properties then enables it to stay firmly stuck over the entire crown with maintained sidewall coverage for added heat dispersion to the rim.



The Thixotropic qualities of Thixogel™ also enables Puncture Safe to go very liquid when the vehicle is at speed, but also enabling the liquid to snap back into a thick gel when the vehicle comes to rest, so the product stays evenly coated in the inner tyre, instead of pooling on the bottom. which is most common with traditional tyre sealants .

### 3. The ability to withstand the heat and stress in a tyre: -

Unlike inexpensive traditional tyre sealants, the Puncture Safe concentrated liquid gel formulation containing 24-superior ingredients will not separate, or ball and dry up because of the extreme heat and centrifugal forces that can be created in a very high speed tyre. Puncture Safe has been tested and proven to stay liquid in a high speed tyre for 40,000 miles and beyond.