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Research & Development Centre,
SOUTHAMPTON.

EDM/RA/46D

APEX EXPANDED TOBACCO: MUTAGENIC
ACTIVITY OF SMOKE CONDENSATE

REPORT NO. RD.2093-RESTRICTED

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SUMMARY

The mutagenic activity of mainstream cigar and cigarette smoke condensate of products manufactured from Apex expanded tobacco has been measured using the Ames bacterial mutagenicity assay and a mammalian cell chromosome aberration assay.

At inclusion levels of 10% and 25% Apex tobacco in cigars the specific activity of condensate in the Ames test was no different to that from the untreated control product and all condensates tested caused chromosome aberrations in cultured Chinese Hamster ovary cells.

However, as the level of Apex tobacco in cigarettes was increased the Ames specific mutagenic activity of the condensate decreased. At 100% Apex tobacco usage, the activity dropped by 37% when compared to the conventional non-expanded product.

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KEY WORDS

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