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Eco-friendly sealant from waste engine oil for fixing rainguards on rubber trees

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The sealant used in rainguard fixation on rubber trees prevents water seepage along the trunk which makes the tapping panel wet. Initially, rubber dissolved in kerosene oil was used in sealant manufacture together with tar (bitumen), China clay and sulphur. Subsequently, use of kerosene oil was omitted with direct application of rubber latex. A large portion of tar is used for the production of presently available rainguard sealants (i.e. both liquid and semisolid types) increasing the cost of rainguards. Research carried out to reduce the cost of rainguard sealant revealed the possibility of replacing the tar component either fully or partially with waste engine oil in manufacturing rainguard sealants cost effectively. Two recipes were developed and patent rights (No: 14093) were also granted for this invention in 2007.

These new sealants did not harden during storage and provided much easier field application than previous developments. They withstood extreme weather conditions without melting. With the use of waste engine oil fully or partially instead of tar, the cost for raw material in sealant manufacture was drastically reduced. Also, the manufacturing process was less costly and convenient due to the reduced time taken for heat melting.

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