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Res. Agr. Eng.

**Řezníček V., Dvořák V.,
Kykalová K., Severa J.,
Mareček J., Fryč J.:
A new method of**

cleaning solid surfaces contaminated with oils

Res. Agr. Eng., 55 (2009): 141-148

The aim of the work was to find an alternative way of cleaning roads and other kinds of solid surfaces contaminated as a result of accidents. The method is designed to dissolve oil leaks coming from motor vehicles, but it is also suitable for removing other liquids with similar physical and chemical characteristics, for example plant and paraffinic oils. The principle of this method is to emulsify the contaminant with the reagent foam. The foam is applied on the contaminated surface and it reacts with the contaminant, given rise to an emulsion. The process is supported by the mechanical movement of brushes, which mix the foam with the contaminant. The movement increases the sorption capacity of the foam and its stability. After the surface decontamination, the residual emulsion is removed, together with the foam, with a combined wet suction cleaner equipped with an emulsion defoamer. The aggregate emulsion is

disposed of in special establishments, especially in dangerous waste incinerators.

Keywords:

decontamination; oil pollution; foam; surfactant

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