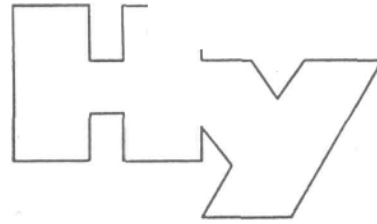


Gelsenkirchen



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Dir.Tgb.-No: C 803/98/sn

Assessment of ZE-KA-FIX Concentrate under the Aspects of Protecting Groundwater and Surfacewater

(Summary of our statement of 14.02.1985, Dir.Tgb.-No. A 341/85/px, English version)

Your letter of 13.09.1984, Schr/ka; 30.01.1985, II/ke, 25.02.1985, Go/ke and 18.05.1988 C. Mathes

The diluted concentrate of ZE-KA-FIX by water, ratio 1:10, shows acid reaction (pH = 0,16). When cleaning tools, transport and other devices, that are spoilt by mortar, cementitious materials or lime, the solution of ZE-KA-FIX gets neutralized when using its optimal cleaning ability, and the pH will rise. When using the ZE-KA-FIX in accordance with the instructions neither strongly acid nor alkaline solutions will result.


The detergents used in ZE-KA-FIX (32,6 g/l calculated as organic carbon) are relatively easily degradable (relation COD/BOD5 ca 5:1) and meet the requirements of the law of detergents (Detergentien-Gesetz) as you informed us.

The label of the bundle points out that there might be a hazard of corrosion by means of the phosphorous acid containing. The used solution of ZE-KA-FIX mainly contains calciumphosphate, it is not doted by chlorides. Phosphates in general are not poisonous.

The used ZE-KA-FIX cleaning solution, more or less neutralized by lime or mortar (pH of 5 to 9), may normally be disposed into the wastewater system without problems in accordance to the regulations.

The disposal into groundwater and surfacewater of the used ZE-KA-FIX cleaning solution too must be avoided with respect to §§ 22,27 and 34 Wasserhaushaltsgesetz of the Federal Republic of Germany combined with article 7 of the EU-Directive of the 4th of May 1976 "concerning the pollution by discharging certain hazardous substances into the water of the Community" (Directive 76/464 EEC).

With kind regards
Der Direktor des Instituts
i.A.



(Dr. Schössner)
- Leiter der Abt. Wasserchemie -

