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Certificate

Hannover,
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The biopersistence of fibres was investigated after intratracheal installation within the following study:

Fraunhofer ITA study no.: 02G99021
Test substance: PR 21.20
Sponsor: Partek Insulation AB, Sweden
Title: Biopersistence of the Man-Made Vitreous Fibre PR 21.20 in Rats after Intratracheal Instillation

This animal study was conducted in compliance with the Principles of Good Laboratory Practice (German Chemicals Law § 19a Appendix 1 pp. 1724-1732, July 25, 1994, amended on May 14, 1997). The protocol of the European Commission (ECB/TM 27 Rev. 7, 1998) with slight changes according study protocol was followed.

The treatment of rats was performed in August 1999 by intratracheal instillation of a total dose of 2 mg per rat. The fibre retention data up to sacrifice date 3 months after instillation were used for analysis.

Following halftimes were calculated by the method according to the protocol of the European Commission:

WHO fibre fraction ($L > 5 \mu\text{m}$, $D < 3 \mu\text{m}$, $L/D > 3/1$): **29 Days** (95% Confidence limit 27 - 32 days)

According to Appendix V Nr.7.1 Abs. 1 Satz 2 Kriterium 2 of the German Gefahrstoffverordnung (Revision date 12. June 1998) the halftime for WHO fibres should be less or equal to 65 days (this limit will be reduced to 40 days after October 1, 2000).

Long fibres fraction (length $> 20 \mu\text{m}$, $L/D > 3/1$): **16 days** (95% confidence limit 15 - 17 days)

According to Guideline 67/548/EWG (revised by guideline 97/69/EG of the Commission dated 5. December. 1997) Appendix Q the classification as carcinogenic material is not applicable for mineral wools if the halftime for fibres longer than $20 \mu\text{m}$ is less than 40 days in the biopersistence test by Intratracheal instillation.

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