

Pantech Panel Technologies (HK) Ltd.  
c/o Hong Kong Curtain Wall Testing Centre Ltd.  
G/F, Block B, Junk Bay Town Lot No.1, 6 Shek Kok Road,  
Tseung Kwan O, NT, Hong Kong

Medical certificate on smouldering gases according to DIN 53436  
at 529°C oven temperature for

**VE panel**

Your application dated 03.11.02 by  
Our test report 189/2002

**Assessment of the acute inhalation toxicity**

Summary of the total toxicological risk:

1. Biological tests were not carried out.
2. Due to the analytical data the values of Carboxihemoglobin of the experimental animals are expected in an uncritical range.
3. Other acute toxicological objections do not exist.

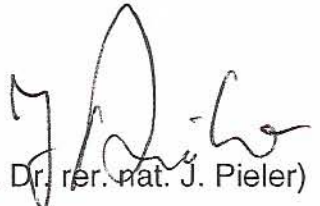
In the matter of above I state the following

**Expert opinion**

The smouldering gases generated from VE panel  
by the company Pantech Panel Technologies (HK) Ltd.  
are considered to be

**non toxic**

under the selected test conditions.

  
(i.V. Dr. rer. nat. J. Pieler)

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### VE panel

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### Assessment of LC<sub>50</sub> according to DIN 53 436 - 5

Threshold values	Measured concentrations
LC <sub>50</sub> CO = 5.500 ppm	CO = 0 ppm
LC <sub>50</sub> HCN = 170 ppm	HCN = 0 ppm
LC <sub>50</sub> HCl = 3.800 ppm	Hcl = 0 ppm
LC <sub>50</sub> SO <sub>2</sub> = 1.400 ppm	SO <sub>2</sub> = 0 ppm
LC <sub>50</sub> No <sub>x</sub> = 120 ppm	No <sub>x</sub> = 0 ppm

$$FED = \frac{[CO]}{LC50CO} + \frac{[HCN]}{LC50HCN} + \frac{[HCl]}{LC50HCl}$$

$$FED = 0$$

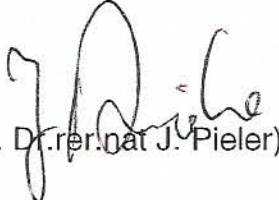
$$LC_{50}\text{-value is calculated with: } LC50 = \frac{\text{mass} - \text{massloss}}{FED \times \text{airvolume}}$$

LC<sub>50</sub> is mathematically calculated to infinite due to FED equals to zero.

In the matter of above I state the following

### Expert opinion

Because no toxic gases could be measured at the end of the test, no critical mass of the tested material could be calculated. The combustion effluent of **VE panel** by the company **Pantech Panel Technologies (HK) Ltd.** can be expected as specified harmless accordig to DIN 53 436 Part 5.

  
(i.V. Dr. rer. nat J. Pieler)