

TEST REPORT: 7191098197-CHM14-01-TSL

Date: 08 OCT 2014

Tel: +65 68851312 Fax: +65 67784301

Client's Ref:

Email: zhou.xiao@tuv-sud-psb.sg

Note: This report is issued subject to the Testing and Certification Regulations of the TÜV SÜD Group and the General Terms and Conditions of Business of TÜV SÜD PSB Pte Ltd. In addition, this report is governed by the terms set out within this report.



PSB Singapore

Choose certainty.
Add value.

SUBJECT

Evaluation of Toxic Fumes Generated From Material Sample During Burning

CLIENT

EGE Carpets Asia Pte Ltd
10 Anson Road
#13-16, International Plaza
Singapore 079903

Attn : Ms Jermaine Ching

SAMPLE SUBMISSION DATE

25 Sep 2014

DESCRIPTION OF SAMPLE

A piece of material sample labelled as follows was received.

Sample Information		Figure of Sample
Brand Name :	Egetaepper a/s	
Model :	Highline 1100 80/20 WT	
Type of Product :	Tufted cut pile carpet on woven textile	
Type of Material	80% Pure New Wool, 20% Polyamide with Woven Textile Backing	
Nominal Density (g/cm ³):	0.150	
Nominal Thickness (mm):	8	

DATE OF ANALYSIS

26 Sep 2014 – 08 Oct 2014



Laboratory:
TÜV SÜD PSB Pte. Ltd.
No.1 Science Park Drive
Singapore 118221

Phone : +65-6885 1333
Fax : +65-6776 8670
E-mail: testing@tuv-sud-psb.sg
www.tuv-sud-psb.sg
Co. Reg : 199002667R

Regional Head Office:
TÜV SÜD Asia Pacific Pte. Ltd.
3 Science Park Drive, #04-01/05
The Franklin, Singapore 118223
TUV®



METHOD OF TEST

Analysis of Pyrolysis and Combustion Gases Generated From the Sample

The test was conducted according to BS 6853:1999 Annex B, B.1 Mass Based Test Method - NF X 70-100 (2006) Method:

1.1 Sample Preparation of Test Specimen

The sample was conditioned at 23°C and 50% Relative Humidity for 48 hours and tested as whole for the following tests.

1.2 Generation of Pyrolysis and Combustion Gases

Approximately 1.0 g of the sample was then used for the test in a stream of air at the air flow rate of 120L/hr at 400°C for 20 minutes in a tube furnace. A further 20 minutes was used to air-flush the apparatus once residue sample was removed from tube furnace.

Toxic fumes collected during the burning were analysed by the following methods:

- a) Carbon Monoxide and Carbon Dioxide : Directly determined by Horiba Automotive Emission Analyzer
- b) Hydrogen Cyanide : By Pyridine – Pyrazalone Method
- c) Others ions: By Ion Chromatography



RESULTS

Table 1: The Toxic Fumes Results For "Egetaepper a/s, Model: Highline 1100 80/20 WT" Sample

Toxic Fumes Generated	"Egetaepper a/s, Model: Highline 1100 80/20 WT" (mg/m ³ of Fire Effluents)	IDLH Values Limits ^a (mg/m ³)
1. Carbon Dioxide, Average (Carbon Dioxide, maximum)	<200 715	73000 -
2. Carbon Monoxide, Average (Carbon Monoxide, maximum)	<200 <200	1400 -
3. Hydrogen Fluoride, HF	<5	25
4. Hydrogen Chloride, HCl	<5	76
5. Hydrogen Bromide, HBr	<5	101
6. Sulfur Dioxide, SO ₂ ^b	<5	270
7. Nitrogen Dioxide, NO ₂ ^c	<5	38
8. Hydrogen Cyanide, HCN	<5	56

^a The values in Table 1 are the IDLH values of the listed gases (the concentration of the gas in the atmosphere which for an exposure time of 30mins is immediately Dangerous to Life or Health) given in the NIOSH Guide [1].

^b Sulfur Dioxide includes Sulfur trioxide expressed as sulfur dioxide

^c Nitrogen dioxide includes nitric oxide expressed as nitrogen dioxide

1. The above results from the analysis of the toxic fumes generated from the specimen were found to be below the IDLH Value of listed gases.
2. The weighted summation index, R, is less than 0.3.

Remarks

The weighted summation index R for the sample tested was found to be within the requirement of 1.0 max when tested and assessed according to NF X 70-100 with R calculated in accordance with Annex B of BS 6853:1999.

MS TAN SER LING
TECHNICAL EXECUTIVE

DR XIAO ZHOU
PRODUCT MANAGER
MICROCONTAMINATION DIAGNOSIS
CHEMICAL & MATERIALS

TEST REPORT: 7191098197-CHM14-01-TSL
08 OCT 2014



PSB Singapore

Please note that this Report is issued under the following terms :

1. This report applies to the sample of the specific product/equipment given at the time of its testing/calibration. The results are not used to indicate or imply that they are applicable to other similar items. In addition, such results must not be used to indicate or imply that TÜV SÜD PSB approves, recommends or endorses the manufacturer, supplier or user of such product/equipment, or that TÜV SÜD PSB in any way "guarantees" the later performance of the product/equipment. Unless otherwise stated in this report, no tests were conducted to determine long term effects of using the specific product/equipment.
2. The sample/s mentioned in this report is/are submitted/supplied/manufactured by the Client. TÜV SÜD PSB therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture, consignment or any information supplied.
3. Nothing in this report shall be interpreted to mean that TÜV SÜD PSB has verified or ascertained any endorsement or marks from any other testing authority or bodies that may be found on that sample.
4. This report shall not be reproduced wholly or in parts and no reference shall be made by the Client to TÜV SÜD PSB or to the report or results furnished by TÜV SÜD PSB in any advertisements or sales promotion.
5. Unless otherwise stated, the tests were carried out in TÜV SÜD PSB Pte Ltd, No.1 Science Park Drive Singapore 118221.

July 2011

