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BV News: Changed PAH-Limits Under GS-Mark



Background

Recently the German committee on product safety agreed on amended PAH-Limits under the voluntary German GS-Mark to reflect changed legal requirements and scientific progress. The changed limits will become applicable on 1 July 2015.

Polycyclic Aromatic Hydrocarbons (PAHs) represent a whole group of structural similar substances of which some have carcinogenic properties while others are at least suspected to have them. PAHs are not added deliberately to consumer products but are impurities of manufacturing processes. In plastics for example, mineral oils are used which often contain PAHs as contaminants. PAHs can also be part of carbon black which is used as a coloring and filling agent for plastics and rubber.

Under Regulation 1907/2006 (Reach) plastic and rubber parts of articles shall not contain eight specific PAH with more than 1 mg/kg if these parts are in prolonged skin contact or 0.5 mg/kg if the article is a toy or childcare article. These limits will become applicable on 27 December 2015.

The German GS-Mark on product safety ("Geprüfte Sicherheit") established PAH-Limits, which are recognized across various industries as market practice to ensure consumer safety. Now these limits are changed to reflect the changing legal background and ongoing scientific progress.

Main changes are:

- Changed scope of category 1 (all toys with intended and prolonged skin contact added)
- Lowered limits of PAHs in categories 2 and 3
- Raised limits in Category 1 for Naphthalene and 8 other PAHs due to the fact that these PAHs are volatile and might therefore result from non-controllable contaminations from other sources

Migration approach for articles, which exceeded the limits of category 1 has been deleted



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Table of Changed PAH Limits

Substance	Category 1:	Category 2:		Category 3:	
	Materials intended to be placed in the mouth and toy materials with intended prolonged skin contact (>30 sec.). [mg/kg]	Materials which do not fall under Cat.1, with foreseeable prolonged skin contact (>30 sec.) or repeated short term skin contact. [mg/kg]		Materials which do not fall under Cat. 1 and 2, with foreseeable short term skin contact (<30 sec.). [mg/kg]	
Benzo[a]pyrene (BaP)	<0.2	<0.2	<0.5	<0.5	<1
Benzo[a]anthracene	<0.2	<0.2	<0.5	<0.5	<1
Chrysene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[b]fluoranthene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[k]fluoranthene	<0.2	<0.2	<0.5	<0.5	<1
Dibenzo[a,h]anthracene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[j]fluoranthene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[e]pyrene	<0.2	<0.2	<0.5	<0.5	<1
Indeno(1,2,3-c,d)pyrene	<0.2	<0.2	<0.5	<0.5	<1
Benzo(g,h,i)perylene	<0.2	<0.2	<0.5	<0.5	<1
Acenaphthylene	<1	<5	<10	<20	<50
Acenaphthene					
Fluorene					
Phenanthrene					
Anthracene					
Fluoranthene					
Pyrene	<1	<2	<2	<10	<10
Naphthaline					
Sum of 18 PAH	<1	<5	<10	<20	<50

Additional Information

Entry of the BAUA:

http://www.baua.de/de/Produktsicherheit/Marktueberwachung/pdf/GS-Spezifikation-PAK.pdf?__blob=publicationFile&v=3

Should you want to know more, please feel free to contact us!

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