Cr-6

Yvonne Jansma,
Sphera/Preventpartner

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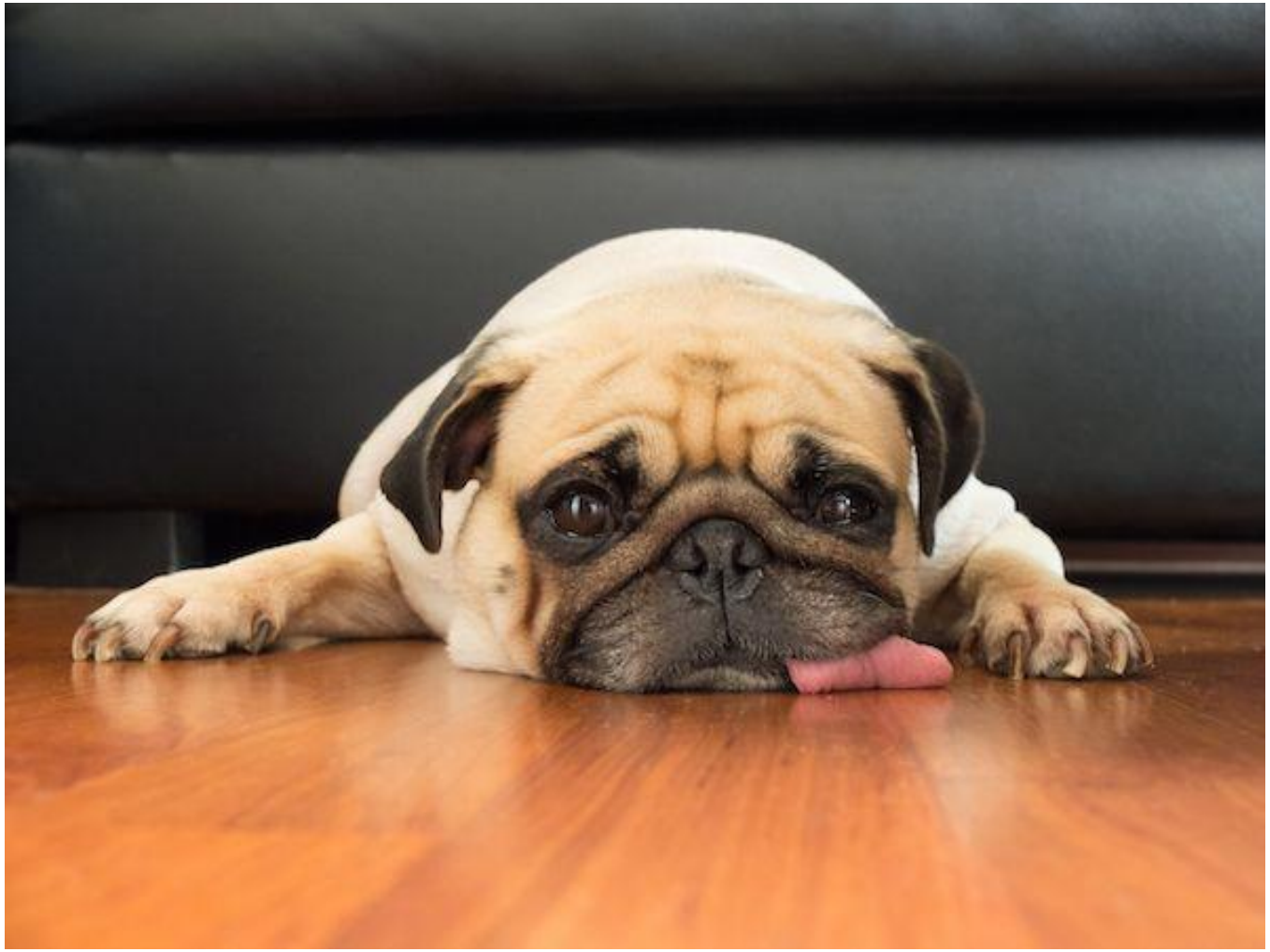

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Even voorstellen.....

- Titaandioxide - of Titanium(VI)oxide of TiO_2 - is een oxide van titanium

- TiO_2 wordt gewonnen uit titaniumerts. 95% van het gedolven erts wordt gebruikt om titaandioxide te maken.

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- Geschatte EU productie (2015) rond de 6.500.000 ton/jaar (Cr6: ca 17.000 ton/jaar)

- TiO_2 is een vaste stof en wordt vooral gebruikt als pigment en wordt dan titaanwit genoemd.

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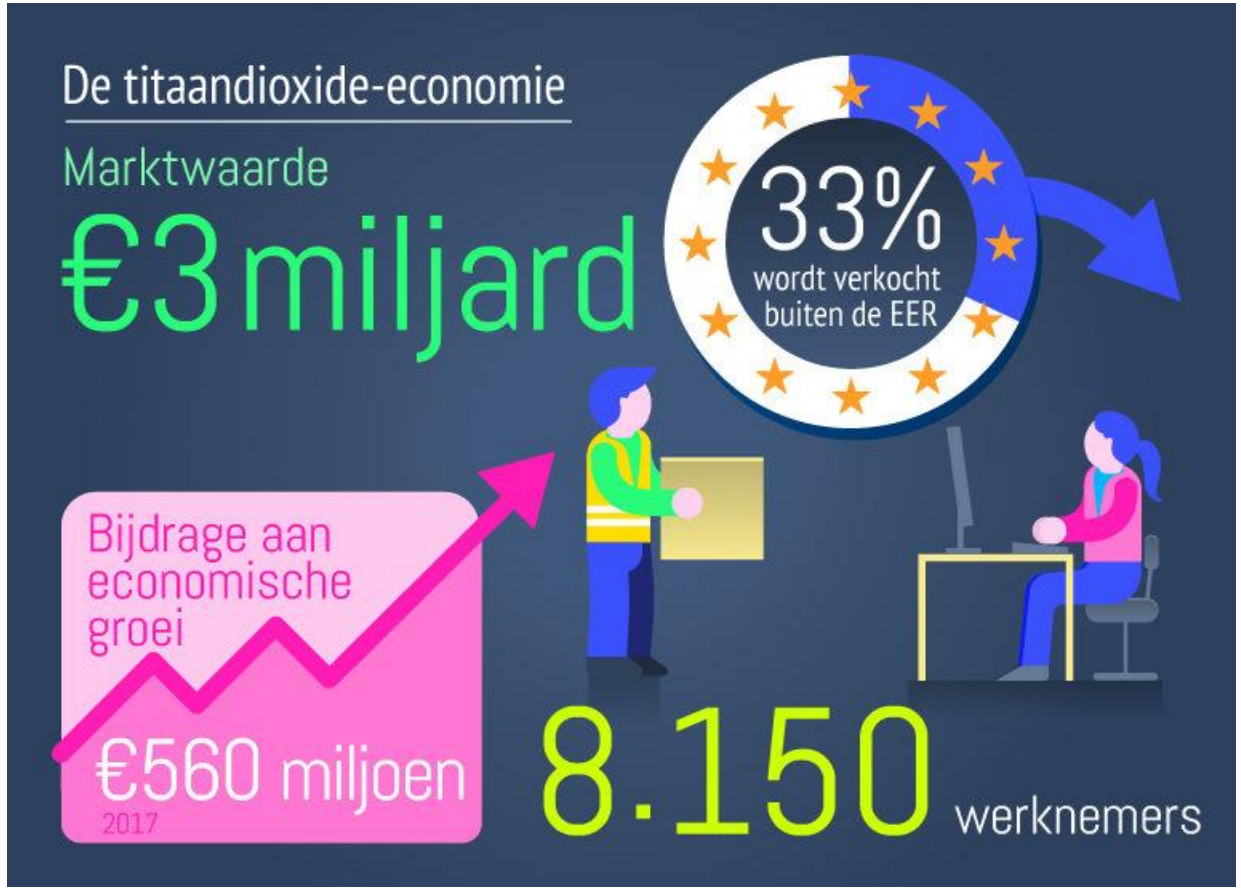
- Grootste afnemer is verfindustrie (ongeveer 60%).

- Ook in levensmiddelen wordt TiO_2 gebruikt onder E-nummer **E171**. Onder andere: tandpasta, zonnebrand, kauwgom en medicijnen.



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REACH registratie: geen classificatie

GHS

Currently viewing:	Titanium dioxide

General Information | Classification | Labelling | Notes

Carcinogenicity

Reason for no classification:	conclusive but not sufficient for classification

DNEL: 10 mg/m3 → Workers, Long Term, irritation

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Grenswaarden arbo

- In Nederland geen publieke grenswaarde
- In Duitsland, UK, België, US (ACGIH) en veel andere landen: 10 mg/m3 (8 uur, inhaleerbaar stof)
- In Duitsland, Canada (Saskatchewan): 20 mg/m3 (15 min, inhaleerbaar stof)

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Volgens de TDMA.....

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IARC

Most evidence suggests that TiO_2 and other PSLT-elicited **lung tumors develop via a secondary genotoxic mechanism** involving chronic inflammation, cell proliferation, and oxidative stress (Schins and Knaapen 2007).
Overloading of lung clearance.... [...]
Although studies **in humans have not shown a direct link between inhaled PSLT and lung cancer**, many of the steps in the mechanism observed in rats have also been observed in humans who work in dusty jobs.....

→ Titanium dioxide is ***possible carcinogenic to humans (Group 2B)*** based on sufficient evidence in experimental animals and inadequate evidence from epidemiological studies.

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Ondertussen in Europa

Substance Details

Name	Titanium dioxide
EC Number	236-675-5
CAS Number	13463-67-7
Dossier submitter	France
CLP Annex VI Index Number	650-RST-VW-Y
Current entry in Annex VI of CLP Regulation	
Proposed future entry in Annex VI of CLP Regulation by the dossier submitter	Carc. 1B, H350i
Start of consultation	31/05/2016
Deadline for commenting	15/07/2016

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Human data do not suggest an association between occupational exposure to TiO_2 and risk for cancer. However, all these studies have methodological limitations and the level of exposure reported is debatable.

In experimental animal studies, lung tumours were reported after inhalation or intra-tracheal administration of TiO_2 (fine rutile, anatase/rutile P25 nano-TiO_2 and nano-rutile) in rats in an overload context. Overload is defined by an impairment of normal pulmonary clearance due to high accumulation of particles. Although inter-species variability was found in particle retention, the

Therefore, classification as Carc. Cat 1B – H350i is justified for TiO_2 considering the increase of both malignant and benign lung tumours in one species, reported in two studies by inhalation and two studies by instillation after exposure to TiO_2. Since the data provided cannot distinguish if a

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Reacties....

Name	Compressed size
ANSES_Proposal_ IACM_Comments_July2016.pdf	49 KB
ASCER statement on the proposal for a harmonized classifi...	44 KB
BCF TIO2 Consultation Response.docx	16 KB
CIRFS response to ECHA Consultation on Titanium Dioxide...	263 KB
Clariant_Opinion on Classification Proposal for TiO2_14072...	6,299 KB
CLH Report Comments_(confidential) 7 15 16.pdf	379 KB
Comment to RAC of the ECHA Jochen Winkler.docx	29 KB
Comments from Colorcon to ECHA 24-June-16.pdf	1,428 KB
Comments on CLH proposal from A Lansdown.pdf	161 KB
Comments on the CLH Proposal DJK v3 page numbered.doc	108 KB
Consequence of a TiO2 Ban.docx	252 KB
doc20160712121001.pdf	467 KB
ECETOC Cover Letter and Letter of Opinion.doc	62 KB
ECHA letter.pdf	688 KB
ECHA Proposed Classification of Ti02.pdf	139 KB
ECHA Proposed Classification of TiO2.pdf	247 KB
ECHA_ CLP_Comment.pdf	230 KB
Eurocolour input CLH Titanium dioxide_20160712.pdf	127 KB
FEPA_Answer to the public consultation TiO2 - July 2016.pdf	251 KB
FINAL IPPIC Comments on ECHA TiO2 Consultation 7-15-...	436 KB
Final_TEGEWA_TiO2.pdf	82 KB
hgD Statement_ECHA_Consultation_TiO2.pdf	24 KB
Indsigelse mod klassificering af Titandioxid som kræftfrem...	51 KB
JTI comments on the ANSES proposal-name cut-.pdf	148 KB
Letter DF Titanium Dioxide 11 07 2016.pdf	118 KB
MPPE Position Paper - Classification of TiO2.pdf	76 KB

MPPE Position Paper - Classification of TiO2.pdf	76 KB
NVS final.pdf	319 KB
Police's opinion - Polish version.pdf	123 KB
SPI Comments on Proposed CLH for TiO2 Under the CLP R...	227 KB
Statement_TiO2.pdf	178 KB
Statement-HuberItalia-TitaniumDioxide.pdf	116 KB
su_133_StN_WKÖ Titanoxid.pdf	141 KB
TDMA response 2016-07-06.docx	15 KB
TDMA-TDIC CLH commentary_Public attachment.pdf	18 KB
TiO2 - Contribution CLH Consultation - Final 12 July 2016....	60 KB
TiO2 - ECHA - ANAFAPYT_july_2016.pdf	222 KB
TiO2 - GAE comments to ECHA consultation.pdf	223 KB
TIO2 proposal_CIAresponse FINAL.pdf	285 KB
TiO2 Stellungnahme BAH 2016_07_15.docx	54 KB
TiO2_CE input CLHPublic consultation 14072016.pdf	697 KB
TiO2_CLH_20160715_JCIA_EN Final.pdf	60 KB
TIP comments HCL proposal Titanium dioxide - 14072016....	82 KB
Titanium dioxide comments July 16.docx	103 KB
Titanium Dioxide Response to Public Consultation WSL.pdf	390 KB
Titanium Dioxide RustOleum Mathys.zip	29 KB
Titanium Dioxide Tor Watco.zip	28 KB
VdL-Position TiO2_30.6.2016.pdf	54 KB
VdMi input CLH Titanium dioxide_20160712.pdf	144 KB

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Alternativen zu Titandioxid sind für Lacke, Farben und Druckfarben kaum vorhanden. Andere Rohstoffe (wie z. B. Calciumcarbonat, Zinkoxid und Z
sind in Bezug auf Stabilität und Abdeckung der Farben (Opazität), ihrer H

The personnel in our production premises undergoes regular pulmonary examinations and no respiratory cancer symptoms have ever been referred, while a corporate doctor evaluates the relevant examination results. Therefore, we are not aware of any relation between the use of TiO_2 and the development of cancer by our workers.

measures in combination with appropriate personal protective equipment. Based on this 63 years' experience of using titanium dioxide we are not aware of any relation to the development of cancer by our workers. Titanium dioxide is a key material to manufacture in some of our products. The proposed classification would affect these, other formulations in which our products are used and

That means with proposed classification would affect these, other formulations in which our products are used and

- All (!) blue and vio
- Bright colours
- Almost all grey shades.

In summary, without TiO_2 the quality standards of coa
and the (man-made) world would be less colourful.

These comments are being prov
Manufacturers' Association (ANA
emicals Agency (ECHA) open public consultation on the proposal from the

Mexican Paint and Printing Ink
T) in response to the European

Justification t

For the d proposal for a ion of titanium nor

(1) Sa ny decades – no indications of pidemiological studies and application practice

(2) Weak Weight of evidence of "lu dies in rats

(3) Harmonized classification require isic substance property

The proposed classification and labelling is inappropriate for the following reasons and would have serious and disproportionately negative impacts:

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CLP classificatie voorstel

In rats, chronic TiO_2 exposure levels associated with marked overload resulted in increased incidences of lung tumours. [….] RAC considers it **plausible to assume** that inflammatory reactions and reactive oxygen species play a central role in **TiO_2 genotoxicity and carcinogenicity**.

→ **Huidig voorstel aan commissie**:

Resulting Annex VI entry if agreed by COM	TBD	Titanium dioxide	236-675-5	13463-67-7	Carc. 2	H351 (inhalation)	GHS08 Wng	H351 (inhalation)

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Consequenties Carc Cat 2

Waarschuwing; H351

Mengsels boven 1% geclassificeerd

- Afval mag niet meer gerecycled worden
- Beoordeling op werkplek?

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Arbeidshygiënische beoordeling…

Appendix 3: CLP H statements

Table 1 A full list of the Hazard (H) statements used in COSHH essentials.

H statement	Phrase	Group
300	Fatal if swallowed	D
301	Toxic if swallowed	C
302	Harmful if swallowed	B
304	May be fatal if swallowed and enters airways	A
310	Fatal in contact with skin	D
311	Toxic in contact with skin	C
340	May cause genetic defects (route if relevant)	E
341	Suspected of causing genetic defects (route if relevant)	E
350	May cause cancer (route if relevant)	E
351	Suspected to causing cancer (route if relevant)	D

Stoffenmanager

Indeling	H-zin	Betekenis
E	• H334	inhalatieallergeen
	• H340 en H341	mutageen
	• H350	bewezen kankerverwekkend
D	• H300, H310, H330	dodelijk
	• H351	verdacht kankerverwekkend
	• H360, H361, H362	reprotoxisch
	• H372	specifieke doelorgaan toxiciteit bij herhaalde blootstelling
C	• H301, H311, H331	giftig

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Stel…..

Beoordeling werksituatie: schuren van een trein

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Gebruikte verf: Wat zit erin?

Titanium white

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Comments : The product is a mixture of the ingredients mentioned below and non-dangerous additives

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
zinc oxide	(CAS No) 1314-13-2 (EC no) 215-222-5 (EC index no) 030-013-00-7	10 - 25	Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of R- and H-phrases: see section 16

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Conclusie

Mogelijke stress en verwarring…..

→Toch Cr-6 in het klein?

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In de handen van Europese Commissie…

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