Activated Carbon Consortium

Activated Carbon - High Density Skeleton

Substance description: **A porous, amorphous, high surface area adsorbent material composed of largely elemental carbon, *with a high skeletal density*.**

(Activated carbon with a high density skeleton is produced by charring and activation with steam or other gases, of various raw materials such as coconut shells, wood, peat, lignite, bituminous coal, synthetic sources and semi-anthracite.)

Analytical identity:

Parameter	Value	Method
Carbon content	80 mass% min.	Standard elemental analyses
Surface area or Iodine number	400 m2/g min. or 400 mg/g min.	Surface area BET or iodine number
Pore volume	0.2 ml/g min.	Mercury porosimetry And / or Gas adsorption
Morphology	Amorphous – no visible crystallinity down to 1 µm	XRD Analysis
Crystalline Silica content	rCS 9.999% w/w max. SiO2 < 12% w/w max.	
Particles < 0.1 µm	10 w/w% max	Laser diffraction PSD
Skeletal density (true density, absolute density)	1.9 g/ml min.	Helium pycknometry
Dustiness	Respirable dust fraction 17% max. inhalante dust fraction	EN 15051, method B « continuous drop »
Trace metals	ICP/OeS	Concentration not leading to classification

Impurity profile:

Impurity	Range	EC number
CaO	0 - 8 mass%	215-138-9
MgO	0 - 3 mass%	215-171-9
FeO	0 - 6 mass%	215-721-8
K2CO3	0 - 8 mass%	209-529-3
Al2O3	0 - 6 mass%	215-691-6
SiO2	0 - 12 mass%	234-368-0
CaSO4	0 - 5 mass%	231-900-3

Classification: Either one of the following classifications may apply:
- not classified
- classified as STOT RE 2, if the Respirable Crystalline Silica (RCS) content is between 1 and 10%.
See also: http://www.crystallinesilica.eu/content/classification-and-labelling-rcs

The producer/importer shall determine for his products which of these two possibilities apply, by testing the material.

Furthermore the following data on your substance needs to be assessed and listed in the SDS:
Dust hazard classification according to EN 13821: ambient conditions: Group B Non-combustible dusts which do not ignite (non-explosible) (list in section 2.3)
Explosion properties (list in section 10.3):

- Dust explosion constant, Kst in bar.m/s
- Minimum ignition energy in J
- Minimum ignition temperature °C
- Minimum explosion concentration in g/m3

CLP Hazard elements for the label:
Single Target Organ Toxicity Repeated Exposure, Category 2, Target organ Lungs

Hazard Pictogram:


= GHS pictogram GHS08

Signal word:
Warning

Hazard statement:
H373, may cause damage to lung through prolonged or repeated inhalation.

Precautionary statements:
P260: do not breathe dust.
P501: Dispose of contents/containers in accordance with local regulations.

The legal provisions related to the labels of hazardous substances are provided in Title III chapter 1 of the CLP Regulation.

TRANSPORT
Not relevant

Statement regarding criteria for nanomaterials
ACPA determined that Activated Carbons do not fullfill the criteria of nanomaterial under the following

- European Commission Recommendation for the definition of Nanomaterials, 2011/696/EU. It was intended to be applied as an overarching framework with regard to other EU regulations
- IISO Technical Committee (TC) 229 “Nanotechnologies”
- French decree, 2012-232 and articles from Code de l’Environnement L523-1 to L523-5

http://acpa.cefic.org/index.php/legislation/nano