TC NES SUBGROUP ON IDENTIFICATION OF PBT AND VPVP SUBSTANCES

RESULTS OF THE EVALUATION OF THE PBT/VPVB PROPERTIES OF:

Substance name: Anthracene oil, anthracene paste, anthracene fraction

EC number: 295-275-9

CAS number: 91995-15-2

Molecular formula: Not applicable

Structural formula: Not applicable

Summary of the evaluation:

Anthracene oil, anthracene paste, anthracene fraction is considered to be a UVCB substance with PBT/vPvB constituents. The constituent anthracene (CAS 120-12-7; see PBT summary No. 32) is a PBT and vPvB substance.

JUSTIFICATION

1 IDENTIFICATION OF THE SUBSTANCE AND PHYSICAL AND CHEMICAL PROPERTIES

Name: Antracene oil, anthracene paste, anthracene fraction
EC Number: 295-275-9
CAS Number: 91995-15-2
IUPAC Name:
Molecular Formula: Not applicable
Structural Formula: Not applicable
Molecular Weight: Not applicable
Synonyms: Anthracene 50%

1.1 PURITY/IMPURITIES/ADDITIVES

Anthracene oil, anthracene paste, anthracene fraction is a UVCB substance. Based on its production process and that the producer has provided data on properties of its constituens, it can be concluded to contain at least anthracene (CAS 120-12-7), phenantrene (CAS 85-01-8) and carbazole (CAS 86-74-8).

1.2 PHYSICO-CHEMICAL PROPERTIES

Table 1 Summary of physico-chemical properties. For details and references, see European Commission (2000)

REACH ref Annex, §	Property	Value	Comments
VII, 7.1	Physical state at 20 C and 101.3 Kpa	Solid	
VII, 7.2	Melting/freezing point	170 – 200^{0}C	VfT AG (1994)
VII, 7.3	Boiling point	330-350^{0}C (at 1013.25 Pa)	VfT AG (1994)
VII, 7.5	Vapour pressure		
VII, 7.7	Water solubility		
VII, 7.8	Partition coefficient n-octanol/water (log value)		
	Dissociation constant	-	

For properties where no data are presented, physical-chemical properties of constituents have been reported by the notifier.

2 MANUFACTURE AND USES

Anthracene oil, anthracene paste, anthracene fration is produced via distillation of coal tar, high temperature (65996-89-6). One company has provided information on the substance under Regulation 93/793/EEC according to the IUCLID (European Commission, 2000). No information on uses is available.

3 CLASSIFICATION AND LABELLING

The substance is classified as carcinogenic (Cat 2), R45 in the Directive 67/548/EEC (with nota H).

4 ENVIRONMENTAL FATE PROPERTIES

Environmental fate of anthracene oil, anthracen paste, anthracene fraction can be roughly estimated based on the properties of its constituents. For fate properties of anthracene and phenantrene, see the PBT summary fact sheets of anthracene (CAS 120-12-7) and coal tar pitch, high temperature (CAS 65996-93-2).

4.1 DEGRADATION (P)

4.1.1 Abiotic degradation

4.1.2 Biotic degradation

4.1.3 Other information [1]

4.1.4 Summary and discussion of persistence

4.2 ENVIRONMENTAL DISTRIBUTION

4.2.1 Adsorption

4.2.2 Volatilisation

4.2.3 Long-range environmental transport

[1] For example, half life from field studies or monitoring data

4.3 BIOACCUMULATION (B)

4.3.1 Screening data[2]

4.3.2 Measured bioaccumulation data[3]

4.3.3 Other supporting information[4]

4.3.4 Summary and discussion of bioaccumulation

5 HUMAN HEALTH HAZARD ASSESSMENT

Data not reviewed for this report.

6 ENVIRONMENTAL HAZARD ASSESSMENT

There are no data available on the ecotoxicity of anthracene oil, anthracene paste, anthracene fraction. For ecotoxicity of its constituents, see the PBT summary fact sheets of anthracene (CAS 120-12-7) and coal tar pitch, high temperature (CAS 65996-93-2).

6.1 AQUATIC COMPARTMENT (INCLUDING SEDIMENT)

6.1.1 Toxicity test results

6.1.1.1 Fish

Acute toxicity

Long-term toxicity

6.1.1.2 Aquatic invertebrates

Acute toxicity

Long-term toxicity

2 For example, log K_{ow} values, predicted BCFs

3 For example, fish bioconcentration factor

4For example, measured concentrations in biota

6.1.1.3 Algae and aquatic plants

6.1.2 Sediment organisms

6.1.3 Other aquatic organisms

6.2 TERRESTRIAL COMPARTMENT

6.3 ATMOSPHERIC COMPARTMENT

7 PBT AND VPVB

7.1 PBT, VPVB ASSESSMENT

Summary: anthracene oil, anthracene paste, anthracene fraction is considered to be a UVCB substance with PBT/vPvB constituents. The constituent anthracene (CAS 120-12-7; see PBT summary No. 32) is considered to be a PBT and vPvB substance.

INFORMATION ON USE AND EXPOSURE

Data not reviewed for this report.

OTHER INFORMATION

The information used in this report was taken from the following source:

European Commission (2000) IUCLID Dataset, anthracene oil, anthracene paste, anthracene fraction, CAS 91995-15-2, 19.2.2000.