

**BENZO(a)PYRENE****0104**

October 2005

CAS No: 50-32-8  
RTECS No: DJ3675000  
EC No: 601-032-00-3Benz(a)pyrene  
3,4-Benzopyrene  
Benzo(d,e,f)chrysene  
C<sub>20</sub>H<sub>12</sub>  
Molecular mass: 252.3

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Combustible.	NO open flames.	Water spray, foam, powder, carbon dioxide.
<b>EXPLOSION</b>			

EXPOSURE	See EFFECTS OF LONG-TERM OR REPEATED EXPOSURE.	AVOID ALL CONTACT! AVOID EXPOSURE OF (PREGNANT) WOMEN!	
<b>Inhalation</b>		Local exhaust or breathing protection.	Fresh air, rest.
<b>Skin</b>	MAY BE ABSORBED!	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
<b>Eyes</b>		Safety goggles or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>Ingestion</b>		Do not eat, drink, or smoke during work.	Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Refer for medical attention.

**SPILLAGE DISPOSAL**

Evacuate danger area! Personal protection: complete protective clothing including self-contained breathing apparatus. Do NOT let this chemical enter the environment. Sweep spilled substance into sealable containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place.

**PACKAGING & LABELLING**T Symbol  
N Symbol  
R: 45-46-60-61-43-50/53  
S: 53-45-60-61**EMERGENCY RESPONSE****SAFE STORAGE**

Separated from strong oxidants.

**IPCS**International  
Programme on  
Chemical SafetyPrepared in the context of cooperation between the International  
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IPCS 2005**SEE IMPORTANT INFORMATION ON THE BACK.**

### IMPORTANT DATA

**Physical State; Appearance**

PALE-YELLOW CRYSTALS

**Chemical dangers**

Reacts with strong oxidants causing fire and explosion hazard.

**Occupational exposure limits**

TLV: Exposure by all routes should be carefully controlled to levels as low as possible A2 (suspected human carcinogen); (ACGIH 2005).

MAK: Carcinogen category: 2; Germ cell mutagen group: 2; (DFG 2005).

**Routes of exposure**

The substance can be absorbed into the body by inhalation of its aerosol, through the skin and by ingestion.

**Inhalation risk**

Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when dispersed.

**Effects of long-term or repeated exposure**

This substance is carcinogenic to humans. May cause heritable genetic damage to human germ cells. Animal tests show that this substance possibly causes toxicity to human reproduction or development.

### PHYSICAL PROPERTIES

Boiling point: 496/C  
Melting point: 178.1/C  
Density: 1.4 g/cm<sup>3</sup>

Solubility in water: none (<0.1 g/100 ml)  
Vapour pressure : negligible  
Octanol/water partition coefficient as log Pow: 6.04

### ENVIRONMENTAL DATA

The substance is very toxic to aquatic organisms. Bioaccumulation of this chemical may occur in fish, in plants and in molluscs. The substance may cause long-term effects in the aquatic environment.

### NOTES

Do NOT take working clothes home.

Benzo(a)pyrene is present as a component of polycyclic aromatic hydrocarbons (PAHs) in the environment, usually resulting from the incomplete combustion or pyrolysis of organic matters, especially fossil fuels and tobacco.

### ADDITIONAL INFORMATION

**LEGAL NOTICE**

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible for the use which might be made of this information