

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 14 Oct 2024

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

Benzo[a]pyrene

1.1. Catalog No.:

677666

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

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Am Wieseneck 7

04451 Cunnersdorf
Deutschland

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1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Carcinogenicity (Category 1B), H350
Germ cell mutagenicity (Category 1B), H340
Reproductive toxicity (Category 1B), H360FD
Skin sensitisation (Category 1), H317
Acute aquatic toxicity (Category 1), H400
Chronic aquatic toxicity (Category 1), H410 Classification according to EU Directives 67/548/EEC or 1999/45/EC
R45
R46
R60, R61
R43
N Dangerous for the
environment
R50/53

2.2. Label elements

2.2.1. Pictogram



2.2.2.

2.2 Label elements
Labelling according Regulation (EC) No 1272/2008
Pictogram Signal word Danger
Hazard statement(s)
H317 May cause an allergic skin reaction.
H340 May cause genetic defects.
H350 May cause cancer.
H360FD May damage fertility. May damage the unborn child.
H410 Very toxic to aquatic life with long lasting effects.
Precautionary statement(s)
P201 Obtain special instructions before use.
P273 Avoid release to the environment.
P280 Wear protective gloves.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P501 Dispose of contents/ container to an approved waste disposal plant.
Supplemental Hazard
Statements
none
Restricted to professional users.
2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Synonyms : 3,4-Benzpyrene
3,4-Benzopyrene
Benzo[def]chrysene
Formula : C₂₀H₁₂
Molecular Weight : 252,31 g/mol
CAS-No. : 50-32-8
EC-No. : 200-028-5
Index-No. : 601-032-00-3
Hazardous ingredients according to Regulation (EC) No 1272/2008
Component Classification Concentration
Benzo[a]pyrene
CAS-No.
EC-No.
Index-No.
50-32-8
200-028-5
601-032-00-3
Skin Sens. 1; Muta. 1B; Carc.
1B; Repr. 1B; Aquatic Acute 1;
Aquatic Chronic 1; H317,
H340, H350, H360FD, H410
<= 100 %
Hazardous ingredients according to Directive 1999/45/EC
Component Classification Concentration
Benzo[a]pyrene
CAS-No.
EC-No.
Index-No.
50-32-8
200-028-5
601-032-00-3
T, N, Carc.Cat.2, Mut.Cat.2,
Repr.Cat.2, R45 - R46 - R60 -
R61 - R43 - R50/53
<= 100 %

3.1.1. Formula

C₂₀H₁₂

3.1.2. Molecular Weight (g/mol)

252.31

3.1.3. CAS-No.

50-32-8

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
For personal protection see section 8.
- 6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
- 6.3 Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
- 6.4 Reference to other sections
For disposal see section 13

7. HANDLING AND STORAGE

- 7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use.
Provide appropriate exhaust ventilation at places where dust is formed.
For precautions see section 2.2. 7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
- 7.3 Specific end use(s)
A part from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Control parameters
Components with workplace control parameters
- 8.2 Exposure controls
Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment
Eye/face protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
Wash and dry hands. Body Protection
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) Appearance Form: solid
 - b) Odour no data available
 - c) Odour Threshold no data available
 - d) pH no data available
 - e) Melting point/freezing point
Melting point/range: 177 - 180 °C - lit.
 - f) Initial boiling point and boiling range
495 °C - lit.
 - g) Flash point no data available
 - h) Evaporation rate no data available
 - i) Flammability (solid, gas) no data available
 - j) Upper/lower flammability or explosive limits
no data available
 - k) Vapour pressure no data available
 - l) Vapour density no data available
 - m) Relative density 1,35 g/cm³
 - n) Water solubility no data available
 - o) Partition coefficient: noctanol/water
log Pow: 5,97
 - p) Auto-ignition temperature
no data available
 - q) Decomposition temperature
no data available
 - r) Viscosity no data available
 - s) Explosive properties no data available
 - t) Oxidizing properties no data available
- ### 9.2 Other safety information
- no data available

10. STABILITY AND REACTIVITY

- 10.1 Reactivity
no data available
 - 10.2 Chemical stability
Stable under recommended storage conditions.
 - 10.3 Possibility of hazardous reactions
no data available
 - 10.4 Conditions to avoid
no data available
 - 10.5 Incompatible materials
Strong oxidizing agents
 - 10.6 Hazardous decomposition products
Other decomposition products - no data available
- In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects
Acute toxicity
no data available
LD50 Subcutaneous - rat - 50 mg/kg
Skin corrosion/irritation

Skin - mouse
Result: Mild skin irritation
Serious eye damage/eye irritation
no data available
Respiratory or skin sensitisation
Chronic exposure may cause dermatitis.
Germ cell mutagenicity
May alter genetic material.
In vivo tests showed mutagenic effects
Carcinogenicity
This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.
Possible human carcinogen
IARC: 1 - Group 1: Carcinogenic to humans (Benzo[a]pyrene)
Reproductive toxicity
May cause congenital malformation in the fetus.
Presumed human reproductive toxicant
May cause reproductive disorders.
Specific target organ toxicity - single exposure
no data available
Specific target organ toxicity - repeated exposure
no data available
Aspiration hazard
no data available
Additional Information
RTECS: DJ3675000
burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting

12. ECOLOGICAL INFORMATION

12.1 Toxicity
Toxicity to daphnia and
other aquatic
invertebrates
EC50 - Daphnia magna (Water flea) - 0,25 mg/l - 48 h
Toxicity to algae EC50 - Pseudokirchneriella subcapitata (green algae) - 0,02 mg/l - 72 h
12.2 Persistence and degradability
no data available
12.3 Bioaccumulative potential
Bioaccumulation Lepomis macrochirus (Bluegill) - 48 h
- 0,0005 mg/l
Bioconcentration factor (BCF): 3.208
12.4 Mobility in soil
no data available
12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
12.6 Other adverse effects
Very toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN number
ADR/RID: 3077 IMDG: 3077 IATA: 3077
14.2 UN proper shipping name
ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Benzo[a]pyrene)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Benzo[a]pyrene)
IATA: Environmentally hazardous substance, solid, n.o.s. (Benzo[a]pyrene)
14.3 Transport hazard class(es)
ADR/RID: 9 IMDG: 9 IATA: 9
14.4 Packaging group
ADR/RID: III IMDG: III IATA: III
14.5 Environmental hazards
ADR/RID: yes IMDG Marine pollutant: yes IATA: yes
14.6 Special precautions for user
Further information
EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available
15.2 Chemical Safety Assessment
For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. For lab use only!