

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)  
Classifications according to Regulation (EC) No 1272/2008.  
Printdate 24 May 2023

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

### 1.1. Product name:

Dibenzo[a,h]pyrene

### 1.1. Catalog No.:

684887

### 1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical  
uses: R&D

### 1.3. Uses advised against:

HPC Standards GmbH  
Am Wieseneck 7

04451 Cunnersdorf  
Deutschland

Tel. +49 34291 3372-36  
Fax. +49 34291 3372-39  
contact@hpc-standards.com

### 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  
Regulation (EC) No 1272/2008  
Germ cell mutagenicity Category 2 - (H341)  
Carcinogenicity Category 1B - (H350)

### 2.2. Label elements

#### 2.2.1. Pictogram



#### 2.2.2.

2.2. Label elements  
Contains dibenzo[a,h]pyrene  
Signal word  
Danger  
Hazard statements

H341 - Suspected of causing genetic defects  
H350 - May cause cancer  
Precautionary Statements - EU (§28, 1272/2008)  
P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P308 + P313 - IF exposed or concerned: Get medical advice/attention  
P405 - Store locked up  
P501 - Dispose of contents/ container to an approved waste disposal plant  
2.3. Other hazards  
No information available.  
This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.  
Chemical name: dibenzo[a,h]pyrene  
EU - REACH (1907/2006) - Article 59(1)  
- Candidate List of Substances of Very High Concern (SVHC) for Authorisation: -  
EU - REACH (1907/2006) - Endocrine Disruptor Assessment List of Substances: -

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

Chemical name: dibenzo[a,h]pyrene  
189-64-0

Weight-%: 100

REACH registration number: -

EC No: 205-878-0

Classification

according to

Regulation (EC) No.

1272/2008 [CLP]: Muta. 2 (H341)

Carc. 1B (H350)

Specific  
concentration

limit (SCL)

M-Factor

M-Factor

(long-term)

Acute Toxicity Estimate

No information available

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59)

#### 3.1.1. Formula

C<sub>24</sub>H<sub>14</sub>

#### 3.1.2. Molecular Weight (g/mol)

302.37

### 3.1.3. CAS-No.

189-64-0

## 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.

Skin contact Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor.

Ingestion Rinse mouth.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms No information available.

### 4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### 5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

### 5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical

No information available.

### 5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

#### 6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

#### 6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

#### 6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information

## 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

General hygiene considerations Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Store locked up. Please refer to the manufacturers certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA.

### 7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Exposure Limits

Chemical name: dibenzo[a,h]pyrene

189-64-0

Cyprus: -

Czech Republic: -

Denmark: TWA: 0.2 mg/m<sup>3</sup>

Estonia: -

Finland: iho\*

France: -

Germany: -

Germany MAK: \*

Greece: -

Hungary: -

Luxembourg: -

Malta: -

Netherlands: TWA: 550 ng/m<sup>3</sup>

H\*

Norway: TWA: 0.04 mg/m<sup>3</sup>

STEL: 0.12 mg/m<sup>3</sup>

Poland: TWA: 0.002 mg/m<sup>3</sup>

\*

Portugal: -

Romania: TWA: 0.2 mg/m<sup>3</sup>

Slovakia: -

Slovenia: \*

Spain: -

Sweden: \*

Switzerland: -

United Kingdom: -

Biological occupational exposure limits

Chemical name: dibenzo[a,h]pyrene

189-64-0

Denmark: -

Finland: -

France: -

Germany: 0.3 ug/g Creatinine -

BAR (end of exposure or end of shift) urine

0.3 ug/g Creatinine -

BAR (for long-term exposures: at the end of the shift after several shifts) urine

Germany: -

Hungary: -

Ireland: 4 umol/mol Creatinine

(urine - 1-Hydroxypyrene post shift)

Italy: -

Italy REL: 2.5 ug/L - urine

(1-Hydroxypyrene with hydrolysis) - end of shift

at end of workweek

- urine

(3-Hydroxybenzo(a)pyrene with hydrolysis) - end of

shift at end of workweek

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC)

No information available.

8.2. Exposure controls

Personal protective equipment

Eye/face protection Avoid contact with eyes. Wear safety glasses with side shields (or goggles).

Hand protection Wear suitable gloves. The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374. Wear protective nitrile rubber gloves. Wear protective Viton(TM) gloves.

Skin and body protection Wear suitable protective clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection.

Environmental exposure controls Do not allow into any sewer, on the ground or into any body of water.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

Physical state Solid

Appearance Crystalline

Colour light yellow

Odour No information available.

Odour threshold No information available

Property Values Remarks o Method

Melting point / freezing point 317 °C None known

Initial boiling point and boiling range

No data available None known

Flammability No data available None known

Flammability Limit in Air None known

Upper flammability or explosive limits

No data available

Lower flammability or explosive limits

No data available

Flash point No data available None known

Autoignition temperature No data available None known

Decomposition temperature None known

pH No data available None known

pH (as aqueous solution) No data available No information available  
Kinematic viscosity No data available None known  
Dynamic viscosity No data available None known  
Water solubility No data available None known  
Solubility(ies) No data available None known  
Partition coefficient 7.28 None known  
Vapour pressure No data available None known  
Relative density No data available None known  
Bulk density No data available  
Liquid Density No data available  
Relative vapour density No data available None known  
Particle characteristics  
Particle Size No information available  
Particle Size Distribution No information available  
9.2. Other information  
Molecular weight 302.38  
Molecular formula C<sub>24</sub> H<sub>14</sub>  
9.2.1. Information with regards to physical hazard classes  
Not applicable  
9.2.2. Other safety characteristics  
No information available

## 10. STABILITY AND REACTIVITY

10.1. Reactivity  
Reactivity No information available.  
10.2. Chemical stability  
Stability Stable under normal conditions.  
Explosion data  
Sensitivity to mechanical impact None.  
Sensitivity to static discharge None.  
10.3. Possibility of hazardous reactions  
Possibility of hazardous reactions None under normal processing.  
10.4. Conditions to avoid  
Conditions to avoid None known based on information supplied.  
10.5. Incompatible materials  
Incompatible materials None known based on information supplied.  
Hazardous decomposition products None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008  
Information on likely routes of exposure  
Product Information  
Inhalation Specific test data for the substance or mixture is not available.  
Eye contact Specific test data for the substance or mixture is not available.  
Skin contact Specific test data for the substance or mixture is not available.  
Ingestion Specific test data for the substance or mixture is not available.  
Symptoms related to the physical, chemical and toxicological characteristics  
Symptoms No information available.  
Numerical measures of toxicity  
No information available  
Acute toxicity  
Delayed and immediate effects as well as chronic effects from short and long-term exposure  
Skin corrosion/irritation Based on available data, the classification criteria are not met.  
Serious eye damage/eye irritation No information available.  
Respiratory or skin sensitisation No information available.  
Germ cell mutagenicity Contains a known or suspected mutagen. Classification based on data available for ingredients. Suspected of causing genetic defects.  
The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as mutagenic.

Chemical name: dibenzo[a,h]pyrene

European Union: Muta. 2

Carcinogenicity Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name: dibenzo[a,h]pyrene

European Union: Carc. 1B

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties

11.2.2. Other information

Other adverse effects No information available.

## 12. ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity The environmental impact of this product has not been fully investigated.

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

Chemical name: dibenzo[a,h]pyrene

Partition coefficient: 7.28

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available

## 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues/unused products

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

## 14. TRANSPORT INFORMATION

IATA

14.1 UN number or ID number Not regulated

14.2 UN proper shipping name Not regulated  
14.3 Transport hazard class(es) Not regulated  
14.4 Packing group Not regulated  
14.5 Environmental hazards Not applicable  
14.6 Special precautions for user  
Special Provisions None  
IMDG  
14.1 UN number or ID number Not regulated  
14.2 UN proper shipping name Not regulated  
14.3 Transport hazard class(es) Not regulated  
14.4 Packing group Not regulated  
14.5 Marine pollutant Not applicable  
14.6 Special precautions for user  
Special Provisions None No information available  
14.7 Maritime transport in bulk  
according to IMO instruments  
No information available  
RID  
14.1 UN number or ID number Not regulated  
14.2 UN proper shipping name Not regulated  
14.3 Transport hazard class(es) Not regulated  
14.4 Packing group Not regulated  
14.5 Environmental hazards Not applicable  
14.6 Special precautions for user  
Special Provisions None  
ADR  
14.1 UN number or ID number Not regulated  
14.2 UN proper shipping name Not regulated  
14.3 Transport hazard class(es) Not regulated  
14.4 Packing group Not regulated  
14.5 Environmental hazards Not applicable  
14.6 Special precautions for user  
Special Provisions None

## 15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture  
Water hazard class (WGK) strongly hazardous to water (WGK 3)  
Netherlands  
Chemical name: dibenzo[a,h]pyrene  
Netherlands - List of  
Carcinogens: Present  
Netherlands - List of  
Carcinogens: -  
Netherlands - List of  
Reproductive Toxins: -  
Poland SDS created according to the following Polish regulation: Act of February 25, 2011  
on chemical substances and their mixtures (Journal of Laws of 2018, item 143, as  
amended). Regulation (EC) No 1907/2006 of the European Parliament and of the  
Council on the Registration, Evaluation, Authorization and Restriction of Chemicals  
(REACH), establishing the European Chemicals Agency (EC) as amended. Regulation  
(EC) No 1272/2008 of the European Parliament and of the Council of 16 December  
2008 on classification, labeling and packaging of substances and mixtures, as  
amended. Regulation of the Minister of Health of 10 August 2012 on the criteria and  
method of classifying chemical substances and their mixtures (Journal of Laws of  
2012, item 1018). Regulation of the Minister of Health of 20 April 2012 on labeling  
packaging of hazardous substances and mixtures and some mixtures (Journal of  
Laws of 2012, item 445). Regulation of the Minister of Family, Labor and Social Policy  
of 12 June 2018 on the maximum allowable concentrations and intensities of factors  
harmful to health in the work environment (Journal of Laws of 2018, item 1286).  
Announcement of the Minister of Economy, Labor and Social Policy of August 28,  
2003 on the publication of the unified text of the Ordinance of the Minister of Labor  
and Social Policy on general health and safety at work regulations (Journal of Laws  
of 2003, No. 169, item 1650). Regulation of the Minister of Health of 30 December  
2004 on occupational safety and health related to the presence of chemical agents in  
the workplace (Journal of Laws of 2005, No. 11, item 86). Act of December 14, 2012  
on waste (Journal of Laws of 2013, item 21) Regulation of the Minister of Health of  
December 30, 2004 on occupational health and safety related to the presence of  
chemical agents in the workplace (Journal U. of 2005, No. 11, item 86). Waste Act of  
December 14, 2012 (Journal of Laws of 2013, item 21). Act of 13 June 2013 on the  
management of packaging and packaging waste, Journal of Laws 2013, item 888).



Government statement of September 24, 2002 - European Agreement on the International Carriage of Dangerous Goods by Road (ADR) (Journal of Laws No. 194, item 1629 and Journal of Laws of 2003, No. 207, item 2013 and 2014).

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

This

product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

DIRECTIVE (EU) 2021/1187 on the marketing and use of explosives precursors

Not applicable

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

EU - Water Framework Directive (2000/60/EC)

Chemical name: dibenzo[a,h]pyrene - 189-64-0

EU - Water Framework Directive (2000/60/EC): Priority hazardous substance

EU - Environmental Quality Standards (2008/105/EC)

Chemical name: dibenzo[a,h]pyrene - 189-64-0

EU - Environmental Quality Standards (2008/105/EC): Priority hazardous substance

International Inventories

TSCA Contact supplier for inventory compliance status

DSL/NDSL Contact supplier for inventory compliance status

EINECS/ELINCS Contact supplier for inventory compliance status

ENCS Contact supplier for inventory compliance status

IECSC Contact supplier for inventory compliance status

KECL Contact supplier for inventory compliance status

PICCS Contact supplier for inventory compliance status

AIIIC Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

Chemical Safety Report A Chemical Safety Assessment has been carried out for this substance

## 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!