

# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

REF: 722393	PAH-test mixture standard	Page: 1/7
Printing date: 01.10.2019	Date of issue: 04.06.2018	

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

REF 722393  
 Product name PAH-test mixture standard

REACH Registration number(s): see SECTION 3.1/3.2 or  
 A registration number for the substance(s) does not exist because the annual tonnage does not require registration or the substance or its use is excluded from registration.

1 x 1 mL PAH standard for HPLC

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Relevant identified uses**  
 Product for analytical use.  
 Exposure Scenario Classification according REACH, RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC 0  
 The exposure scenario is integrated into sections 1-16.

**Uses advised against**  
 not described

### 1.3 Details of the supplier of the safety data sheet

**Manufactured by:**  
 MACHEREY-NAGEL GmbH & Co. KG  
 Neumann-Neander-Str. 6-8, 52355 Dueren, GERMANY  
 Tel.: +49 2421 969 0 E-mail: sds@mn-net.com (msds@mn-net.com)

### 1.4 Emergency telephone number

Outside Germany (DE): Call your regional Poisons Information Service or call local Life Saving Service.  
 DE: Gemeinsames Giftinformationszentrum (GGIZ) 99089 Erfurt tel. +49 361 730 730

You find our current versions of SDS (22 languages) in Internet: <http://www.mn-net.com/SDS>

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

1 mL PAH standard for HPLC



GHS02 GHS07 GHS08 GHS09

Signal word DANGER

Hazard identification	Hazard classes/categories
H225	Flam. Liq. 2
H304	Asp. Tox. 1
H315	Skin Irrit. 2
H336	not defined
H410	Aquatic Chronic 1

### 2.2 Label elements

Inner packages up to 10 mL need max. 2 symbols (Annex I - 1.5.2.4.1 / 2).

Harmful chemicals/mixtures with signal word: **WARNING** and highly flammable chemicals/mixtures must not be labelled with H and P phrases until 125 mL (EU 1272/2008 Annex I - 1.5.2).  
**Not hazardous labelled**, because 1 mL units or minimal amounts have low hazard risk. The following listed labelling would be creating an "OVERLABELLING".

# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

REF: 722393

PAH-test mixture standard

Page: 2/7

Printing date: 01.10.2019

Date of issue: 04.06.2018

## 1 mL PAH standard for HPLC



GHS02



GHS07



GHS08



GHS09

Signal word: DANGER

H304, H410

May be fatal if swallowed and enters airways. Very toxic to aquatic life with long lasting effects.

P301+310, P331, P391

IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Do NOT induce vomiting. Collect spillage.

## 2.3 Other hazards

### Possible hazards from physicochemical properties

In the case of pH values are less than 5 or higher than 9 then it is irritant. Flammable properties. ---

### Information pertaining to particular risks to human and possible symptoms

May be fatal if swallowed and enters airways. -

### Information pertaining to particular risks to the environment

Very toxic to aquatic life with long lasting effects. Avoid contact of substance/mixture to environment.

**PBT:** not applicable

**vPvB:** not applicable

### Other hazards

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances or 3.2 Mixtures

#### 1 mL PAH standard for HPLC

Chemical: *n-heptane*

CAS No.: 142-82-5

Classification: H225, Flam. Liq. 2, H304, Asp. Tox. 1, H315, Skin Irrit. 2, H336, STOT SE 3, H410, Aquatic Chronic 1

Formula: C<sub>7</sub>H<sub>16</sub>

TSCA Inventory: listed

REACH Reg. No.: 01-2119457603-38-xxxx

EC No.: 205-563-8

Index No.: 601-008-00-2

RTECS: MI7700000

MFCD: 00009544

KE No.: KE-18271

Concentration: 80 - <100 %

acc. CLP (GHS): H225, Flam. Liq. 2, H304, Asp. Tox. 1, H315, Skin Irrit. 2, H336, STOT SE 3, H410, Aquatic Chronic 1

Chemical: *test chemical(s) (ppm)*

CAS No.: -

Classification: No criteria for classification or naming of chemical not required.

TSCA Inventory: all <0.1%

Concentration: 0,01 - <0,1 %

acc. CLP (GHS): The criteria for classification are not fulfilled.

### 3.3 Remarks

List of H and P phrases: see section 16.1

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately. Ensure quiet, warmth, and provide resuscitation if necessary. If necessary contact medical advice.

#### 4.1.1 After SKIN Contact

Remove contaminated clothing. Rinse the affected skin or mucous membrane thoroughly under running water.

# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

REF: 722393

PAH-test mixture standard

Page: 3/7

Printing date: 01.10.2019

Date of issue: 04.06.2018

- 4.1.2 After EYE Contact**  
After contact with the eyes rinse thoroughly under running water with the eyelid wide open with eye washing bottle, eye douche or running water (protect intact eye).
- 4.1.3 After INHALATION of vapours**  
After inhalation of foam or vapour fresh air should be inhaled. Keep airways free. ---
- 4.1.4 After ORAL Intake**  
After oral intake lots of water should be drunk after it has been ingested. ---
- 4.2 Most important symptoms and effects, both acute and delayed**  
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- 4.3 Indication of any immediate medical attention and special treatment needed**  
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## SECTION 5: Firefighting measures

- 5.1 Extinguishing media**  
Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used.
- 5.2 Special hazards arising from the substance or mixture**  
DANGER: Highly flammable (GHS regulation). Forms explosive vapour-air mixtures. ---
- 5.3 Advice for firefighters**  
No, for listed product. Product package burns like paper or plastic.
- 5.4 Additional information**  
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## SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures**  
Regular staff training is necessary.
- 6.2 Environmental precautions**  
not necessary, contains only small amounts of these substances
- 6.3 Methods and material for containment and cleaning up**  
Not for organic solvents (see section 13).
- 6.4 Reference to other sections**  
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## SECTION 7: Handling and storage

- 7.1 Precautions for safe handling**  
Handling in accordance with the test instruction, that comes with the product.
- 7.2 Conditions for safe storage, including any incompatibilities**  
The original product package of MACHEREY-NAGEL allows a safe storage.  
Storage class (VCI): 3  
Water hazard class (DE): 2
- 7.2.1 Requirements for stock rooms and containers**  
Keep original product packages tightly closed during handling and storage.
- 7.3 Specific end use(s)**  
Product for analytical use.

## SECTION 8: Exposure controls/personal protection

- 8.1 Control parameters**  
1 mL PAH standard for HPLC

# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

REF: 722393

PAH-test mixture standard

Page: 4/7

Printing date: 01.10.2019

Date of issue: 04.06.2018

Chemical: *n*-heptane CAS No.: 142-82-5  
 DNEL: 2085<sub>inh</sub> mg/kg  
 DNEL = Derived No-Effect Level (for workers)  
 PNEC<sub>(fresh water)</sub>: no risk  
 PNEC = Predicted No Effect Concentration  
 EU value: 500 ppm / 2085 mg/m<sup>3</sup>  
 TRGS 900 (DE): 500 ppm / 2100 mg/m<sup>3</sup>  
 E/e respirable  
 Short-term exposure factor: 1 (I)  
 skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded  
 SUVA(CH) MAK value: 400 ppm / 1600 mg/m<sup>3</sup>  
 NIOSH: TWA 85 ppm / 350 mg/m<sup>3</sup>; C 440 ppm / 1800<sub>15min</sub> mg/m<sup>3</sup>  
 [TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period  
 OSHA: TWA 500 ppm / 2000 mg/m<sup>3</sup>  
 Chemical: *test chemical(s) (ppm)* CAS No.: -

## 8.2 Exposure controls

The highest level of cleanliness must be maintained at the workplace.

### 8.2.1 Respiratory protection

No additional recommendations.

### 8.2.2 Hand protection

Yes, gloves according EN 374 (permeation time >30 min - level 2), consist of PVC (f.ex. from Ansell or KCL).

### 8.2.3 Eye protection

Yes, safety glasses according EN 166 with integrated side shields or wrap-around protection.

### 8.2.4 Skin protection

Recommended.

### 8.2.5 Personal hygiene

Eating, drinking, smoking, taking snuff and storage of food in work areas and at outdoor workplaces is prohibited. Avoid contact with the skin, eyes and clothing. Rinse any clothing on which the substance has been spilled, and soak it in water. Wash hands thoroughly with soap and water when stopping work and before eating, and then apply protective skin cream.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### 1 mL PAH standard for HPLC

Appearance: liquid	Colour: colourless	Odor: organic
Odor limit:	68 mg/m <sup>3</sup>	
pH:	7	
Melting point:	-45 °C	
Boiling point:	82 °C	
Flash point:	2 °C	
Explosion limits:	3.0-16 Vol%	
Vapour pressure (20 °C):	97 hPa	
Vapour density <sub>(air=1)</sub> :	1,42	
Specific gravity:	0,78 g/cm <sup>3</sup>	
Solubility in water:	0-100 %	
Flashing temperature:	525 °C	
Volatiles by volume:	162 g/m <sup>3</sup>	

### 9.2 Other information

#### Relevant Properties of Substance Group

Substances are very volatile and form flammable vapour-air mixtures. ---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no further data available.

### 10.2 Chemical stability

# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

REF: 722393	PAH-test mixture standard	Page: 5/7
Printing date: 01.10.2019	Date of issue: 04.06.2018	

No known instability.

### 10.3 Possibility of hazardous reactions

No further data available.

### 10.4 Conditions to avoid

Not necessary. ---

### 10.5 Incompatible materials

Avoid contact with strong acids or alkalines.

### 10.6 Hazardous decomposition products

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Following information is valid for pure substances.

#### 1 mL PAH standard for HPLC

Chemical:	<i>n-heptane</i>	CAS No.: 142-82-5
TSCA Inventory:	listed	
Exposure Routes:	inhalation, ingestion, skin and/or eye contact	
Target Organs:	Skin, respiratory system, central nervous system	
Symptoms:	dizziness, stupor, incoordination; loss of appetite, nausea; dermatitis; chemical pneumonitis (aspiration liquid); unconsciousness	
Japan CSCL/PRTR:	not listed, Japan PDSCL: not listed	
Japan ISHL:	listed $\geq 1,0\%$ / $\geq 1,0\%$	
Korea Exist.Chem.Inventory:	KE-18271	
LD50 <sub>orl rat</sub> :	>15 g/kg	
LC50 <sub>ihl rat</sub> :	>29.3 / 103 <sub>4h</sub> g/m <sup>3</sup>	
TRGS 905 (DE):	R <sub>F</sub> D	

Chemical:	<i>test chemical(s) (ppm)</i>	CAS No.: -
TSCA Inventory:	all <0.1%	

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 1 mL PAH standard for HPLC

Chemical:	<i>n-heptane</i>	CAS No.: 142-82-5
Very toxic to aquatic life with long lasting effects. Avoid contact of substance/mixture to environment.		
Environmental hazards must not be labelled with H and P phrases until 125 mL (EU 1272/2008 Annex I - 1.5.2).		
PNEC <sub>(fresh water)</sub> :	no risk	
PNEC = Predicted No Effect Concentration		
LC50 <sub>daphnia magna/48h</sub> :	NOELR/21d: 1 mg/L	
LC50 <sub>fish/96h</sub> :	5.7 mg/L	
EC50 <sub>daphnia/48h</sub> :	3.9 mg/L	
EC50 <sub>pseudokirchneriella subcapitata/72h</sub> :	EL50/72h: 4,3 mg/L	
Water hazard class (DE):	2	WGK No.: 0120
Storage class (VCI):	3	

Chemical:	<i>test chemical(s) (ppm)</i>	CAS No.: -
Storage class (VCI):	12	

### 12.2 Persistence and degradability

not necessary

### 12.3 Bioaccumulative potential

# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

REF: 722393

PAH-test mixture standard

Page: 6/7

Printing date: 01.10.2019

Date of issue: 04.06.2018

not necessary

## 12.4 Mobility in soil

not necessary

## 12.5 Results of PBT and vPvB assessment

no data available

## 12.6 Other adverse effects

no additional data available

## SECTION 13: Disposal considerations

Please observe local regulations for collection and disposal of hazardous waste and contact waste disposal company, where you will obtain information on laboratory waste disposal (waste code number 16 05 06). Or collect in solvent waste (waste code number 07 07 04).

### 13.1 Waste treatment methods

## SECTION 14: Transport information

14.1 - 14.4: No dangerous goods according the transport regulations because  
**De Minimis** (excepted quantities:  $\leq 1 \text{ mL} / \sum \leq 100 \text{ mL}$ ) = ADR 3.5.1.4  
**De Minimis** (excepted quantities:  $\leq 1 \text{ mL} / \sum \leq 100 \text{ mL}$ ) = IATA DRG 2.6.10

### 14.5 Environmental hazards

none, contains only small amounts of these substances

### 14.6 Special precautions for user

not necessary

### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

German act governing protection from hazardous substances (Chemicals Act / Chemikaliengesetz- ChemG), revised on August 2013  
 German order governing protection from hazardous substances (Ordinance on Hazardous Substances / Gefahrstoffverordnung - GefStoffV), revised on November 2010, according to Directive 98/24/EC  
 TRGS 200, German engineering rules governing the classification and labelling of hazardous substances, preparations and products, updated October 2011  
 MN Leaflet/User manual, also see [www.mn-net.com](http://www.mn-net.com)  
 Look for your country-specific regulations.

### 15.2 Chemical safety assessment

not necessary for these small amounts ---

## SECTION 16: Other information

### 16.1 List of H and P phrases

#### 16.1.1 List of relevant H phrases

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H410	Very toxic to aquatic life with long lasting effects.

#### 16.1.2 List of relevant P phrases

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P260D	Do not breathe vapours.
P273	Avoid release to the environment.
P280sh	Wear protective gloves/eye protection.
P301+310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331	Do NOT induce vomiting.

# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

REF: 722393	PAH-test mixture standard	Page: 7/7
Printing date: 01.10.2019	Date of issue: 04.06.2018	

P391 Collect spillage.

**16.2 Training advice**

Multiple safety training of staffs about danger and protection by using hazards in working area.

**16.3 Recommended restriction on use**

Only for professional user.  
An individual package of this product or test kit has a moderate hazardous potential.

**16.4 Further information**

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**16.5 Sources of key data**

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS  
Regulation 487/2013/EU, 4<sup>th</sup> adaptation of CLP regulation to technical and scientific progress  
Regulation 669/2018/EU, 4<sup>th</sup> adaptation of CLP regulation to technical and scientific progress  
TRGS 900, German engineering rules governing limits in air at work, updated 03/2018  
SUVA .CH, Limits in air at work 2009, revised on 01.2009  
KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

**Revisions/Updates**

Reason for Revision: 2016-03 Adaptation of regulation 1221/2015/EU

