



TCI EUROPE N.V.

SAFETY DATA SHEET

According to 1907/2006/EC, Article 31

Revision number: 3

Revision date: 04/11/2019

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

1.1 Product identifiers

Product name: Phenanthrene
Product code: P0079

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

Identified uses: Reagents.

1.3 Details of the supplier of the safety data sheet

Supplier:

TCI EUROPE N.V.
Boerenveldseweg 6
Haven 1063
B-2070 Zwijndrecht
Telephone: +32(0)3 735 07 00
E-mail: sales-eu@tcichemicals.com

1.4 Emergency telephone number: +32(0)70 245 245

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Acute toxicity (Oral)	Category 4
Skin sensitization	Category 1
Acute aquatic hazard	Category 1
Long-term aquatic hazard	Category 1

2.2 Label elements

Pictograms or hazard symbols



Signal word

Warning

Hazard statements

H302-Harmful if swallowed.
H317-May cause an allergic skin reaction.
H400-Very toxic to aquatic life.

Precautionary statements

H410-Very toxic to aquatic life with long lasting effects.
P261-Avoid breathing dust/fume/gas/mist/vapours/spray.
P273-Avoid release to the environment.
P270-Do not eat, drink or smoke when using this product.
P264-Wash hands and face thoroughly after handling.
P280-Wear protective gloves.
P302+P352+P333+P313+P362+P364-IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Take off contaminated clothing. And wash it before reuse.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable
vPvB: Applicable

SECTION 3: Composition/information on ingredients

3.1 Substances

Components: Phenanthrene
Percent: >97.0%(GC)
CAS RN: 85-01-8
EC-No: 201-581-5
Chemical Formula: C₁₄H₁₀

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
Skin contact:	Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
Eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion:	Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
Protection of first-aiders:	A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

4.2 Most important symptoms and effects, both acute and delayed

No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Dry chemical, foam, water spray, carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon dioxide, Carbon monoxide

5.3 Advice for firefighters

Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so. When extinguishing fire, be sure to wear personal protective equipment

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc

6.2 Environmental precautions

Be careful not to let it flow into rivers, etc., since adverse effects on the environment are concerned

6.3 Methods and materials for containment and cleaning up

Sweep dust to collect it into an airtight container, taking care not to disperse it. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Store in a cool and dark place. Store away from incompatible materials such as oxidizing agents.
Light-sensitive

7.3 Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

OSHA PEL(TWA): 0.2 mg/m³

8.2 Exposure controls

Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath.

Respiratory protection:

Dust respirator. Follow local and national regulations.

Hand protection:

Protective gloves.

Eye protection:

Safety glasses. A face-shield, if the situation requires.

Skin and body protection:

Protective clothing. Protective boots, if the situation requires.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state (20°C):	Solid
Form:	Crystal - Powder
Colour:	White - Slightly pale reddish yellow
Odour:	Weakly Aromatic
pH:	No data available
Melting point/freezing point:	100°C
Boiling point/range:	340°C
Flash point:	No data available
Evaporation rate(Butyl Acetate=1):	No data available
Flammability(solid, gas):	No data available
Flammability or explosive limits:	
Lower:	0.7%
Upper:	5.2%
Vapour pressure:	0.13kPa/118°C
Vapour density:	6.15
Relative density:	No data available
Solubility(ies):	
[Water]	Insoluble
[Other solvents]	
Soluble:	Ether, Benzene, Chloroform, Toluene
Slightly soluble:	Alcohols
Partition coefficient:	4.57
n-octanol/water:	
Autoignition temperature:	No data available
Decomposition temperature:	No data available
Dynamic Viscosity:	No data available
Kinematic viscosity:	No data available

9.2 Other safety information No data available

SECTION 10: Stability and reactivity

10.1 Reactivity	No data available
10.2 Chemical stability	Stable under proper conditions.
10.3 Possibility of hazardous reactions	No special reactivity has been reported.
10.4 Conditions to avoid	No data available
10.5 Incompatible materials	Oxidizing agents
10.6 Hazardous decomposition products	Carbon dioxide, Carbon monoxide

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute Toxicity:	ivn-mus LD50:56 mg/kg ipr-mus LD50:700 mg/kg orl-rat LD50:1.8 g/kg
Skin corrosion/irritation:	No data available
Serious eye damage/irritation:	No data available
Respiratory or skin sensitization:	No data available
Germ cell mutagenicity:	mno-sat 50 ug/plate (-S9) mtr-mus-fbr 0.1 mg/L/21D (-S9) sce-ham-ipr 900 mg/kg/24H skn-mus TDLo:71 mg/kg
Carcinogenicity:	
IARC =	Group 3 (Not classifiable as carcinogenic to humans)
NTP =	No data available
Reproductive toxicity:	No data available
STOT-single exposure:	No data available
STOT-repeated exposure:	No data available
Aspiration hazard:	No data available
RTECS Number:	SF7175000

SECTION 12: Ecological information

12.1 Toxicity	
Fish:	96h LC50:1.4 mg/L (Oryzias latipes)
Crustacea:	48h EC50:1.1 mg/L (Daphnia magna)
Algae:	72h EC50:0.41 mg/L (Selenastrum capricornutum)
12.2 Persistence and degradability	54 % (by BOD) , 79 % (by GC) , 71.9 % (by UV-VIS)
12.3 Bioaccumulative potential	No data available
12.4 Mobility in soil	
Log Pow:	4.57
Soil adsorption (Koc):	No data available
Henry's Law (PaM³/mol):	12.6
12.5 Results of PBT and vPvB assessment	
PBT:	Not applicable
vPvB:	Applicable
12.6 Other adverse effects	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.

SECTION 14: Transport information

14.1 UN number	3077
14.2 UN proper shipping name	
ADR/RID	Environmentally hazardous substance, solid, n.o.s
IMDG/IMO	Environmentally hazardous substance, solid, n.o.s
ICAO/IATA	Environmentally hazardous substance, solid, n.o.s
14.3 Transport hazard class(es)	
ADR/RID	9: Miscellaneous dangerous goods
IMDG/IMO	9: Miscellaneous dangerous goods
ICAO/IATA	9: Miscellaneous dangerous goods
14.4 Packaging group	
ADR/RID	III
IMDG/IMO	III
ICAO/IATA	III
14.5 Environmental hazards	
Marine pollutant	Y
14.6 Special precautions for user	No data available

SECTION 15: Regulatory information

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

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No.1907/2006 Listed (Candidate List)

15.2 Chemical safety assessment A chemical safety assessment has not been carried out.

SECTION 16: Other information

Prepared by: TCI EUROPE N.V.
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This SDS was prepared sincerely on the basis of the information we could obtain, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.

End of Safety Data Sheet