



# CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 17/11/2015

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Version: 2.0

ES-5484

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

### 1.1. Product identifier

Product form : Mixtures  
Product name : CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE  
Product code : ES-5484

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

#### 1.2.1. Relevant identified uses

Main use category : Professional use  
Industrial/Professional use spec : For professional use only

#### 1.2.2. Uses advised against

No additional information available

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

Cambridge Isotope Laboratories, Inc.  
50 Frontage Road  
Andover, MA 01810  
USA

USA: 1-800-322-1174 Int: 1-978-749-8000  
[cilsales@isotope.com](mailto:cilsales@isotope.com) [www.isotope.com](http://www.isotope.com)

### Emergency telephone number

Emergency numbers:

Chemtrec: 1-800-424-9300 (24 hours)  
International: 1-703-741-5970 (24 hours)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2 H225  
Skin Irrit. 2 H315  
Repr. 2 H361  
STOT SE 3 H336  
STOT RE 2 H373  
Asp. Tox. 1 H304

Full text of hazard classes and H-statements : see section 16

#### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

F; R11  
Xi; R38  
Xn; R65  
Repr.Cat.3; R62  
Repr.Cat.3; R63  
R67  
N; R51/53  
Xn; R48/20

Full text of R-phrases: see section 16

#### GHS-US classification

Flam. Liq. 2 H225  
Skin Irrit. 2 H315  
Repr. 2 H361  
STOT SE 3 H336  
STOT RE 2 H373  
Asp. Tox. 1 H304  
Aquatic Acute 2 H401

Full text of H statements : see section 16

# CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE

5484

ES-

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Adverse physicochemical, human health and environmental effects

brain. kidneys. liver. urinary bladder. Suspected of damaging fertility. Suspected of damaging the unborn child. May cause damage to organs (brain, kidneys, liver, urinary bladder) (if inhaled, if swallowed, in contact with skin). May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. Causes skin irritation.

## 2.2. Label elements

### Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazardous ingredients

: TOLUENE UNLABELED

Hazard statements (CLP)

: H225 - Highly flammable liquid and vapor  
H304 - May be fatal if swallowed and enters airways  
H315 - Causes skin irritation  
H336 - May cause drowsiness or dizziness  
H361 - Suspected of damaging fertility. Suspected of damaging the unborn child. (if inhaled, if swallowed, in contact with skin)  
H373 - May cause damage to organs (liver, kidneys, brain, urinary bladder) through prolonged or repeated exposure (in contact with skin, if inhaled, if swallowed)

Precautionary statements (CLP)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 - Keep container tightly closed.  
P240 - Ground/bond container and receiving equipment.  
P241 - Use explosion-proof electrical, lighting, ventilating equipment  
P260 - Do not breathe dust, fume, gas, mist, spray, vapors.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P271 - Use only outdoors or in a well-ventilated area.  
P280 - Wear protective clothing, protective gloves.

### GHS-US labeling

Hazard pictograms (GHS-US)



Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: H225 - Highly flammable liquid and vapor  
H304 - May be fatal if swallowed and enters airways  
H315 - Causes skin irritation  
H336 - May cause drowsiness or dizziness  
H361 - Suspected of damaging fertility, Suspected of damaging the unborn child. (Dermal, Inhalation, oral)  
H373 - May cause damage to organs (kidneys, liver, urinary bladder, brain) through prolonged or repeated exposure (Dermal, Inhalation, oral)  
H401 - Toxic to aquatic life

Precautionary statements (GHS-US)

: P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking.  
P233 - Keep container tightly closed.  
P240 - Ground/Bond container and receiving equipment  
P241 - Use explosion-proof electrical, lighting, ventilating equipment  
P242 - Use only non-sparking tools.  
P243 - Take precautionary measures against static discharge.  
P260 - Do not breathe fume, mist, spray, vapors.  
P261 - Avoid breathing dust, fume, gas, mist, spray, vapors.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P271 - Use only outdoors or in a well-ventilated area.  
P273 - Avoid release to the environment.  
P280 - Wear eye protection, face protection, protective clothing, protective gloves.  
P301+P310 - If swallowed: Immediately call a doctor, a POISON CENTER

# CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE

5484

ES-

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P302+P352 - If on skin: Wash with plenty of water  
 P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
 P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing  
 P308+P313 - If exposed or concerned: Get medical advice/attention.  
 P312 - Call a doctor, a POISON CENTER if you feel unwell  
 P314 - Get medical advice/attention if you feel unwell.  
 P321 - Specific treatment (see Hazardous component(s) for labeling on this label)  
 P331 - Do NOT induce vomiting.  
 P332+P313 - If skin irritation occurs: Get medical advice/attention.  
 P362+P364 - Take off contaminated clothing and wash it before reuse.  
 P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO<sub>2</sub>), dry extinguishing powder to extinguish.  
 P403+P233 - Store in a well-ventilated place. Keep container tightly closed.  
 P403+P235 - Store in a well-ventilated place. Keep cool.  
 P405 - Store locked up.  
 P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC
TOLUENE UNLABELED	(CAS-No.) 108-88-3 (EC-No.) 203-625-9 (EC Index-No.) 601-021-00-3 (REACH-no) 01-2119471310-51	99.99815	F; R11 Xi; R38 Xn; R65 Repr.Cat.3; R62 Repr.Cat.3; R63 R67 N; R51/53 Xn; R48/20
1-HYDROXYNAPHTHALENE (1-NAPHTHOL) UNLABELED	(CAS-No.) 90-15-3 (EC-No.) 201-969-4 (EC Index-No.) 604-029-00-5	0.000462	Xn; R21/22 Xi; R41 Xi; R39 T; R24 Xi; R37/38 N; R51/53
2-HYDROXYNAPHTHALENE (2-NAPHTHOL) UNLABELED	(CAS-No.) 135-19-3 (EC-No.) 205-182-7 (EC Index-No.) 604-007-00-5	0.000462	N; R50 Xn; R20/22
1-HYDROXYPHENANTHRENE UNLABELED	(EC-No.) 207-602-4	0.000116	Xi; R36/37/38
2-HYDROXYFLUORENE UNLABELED	(CAS-No.) 2443-58-5 (EC-No.) 219-478-9	0.000116	Xi; R36/37/38
1-HYDROXYPYRENE UNLABELED		0.000116	Xi; R36/37/38
3-HYDROXYFLUORENE UNLABELED	(CAS-No.) 6344-67-8 (EC-No.) 219-478-9 (Unlabeled) (EC Index-No.)	0.000116	Xi; R36/37/38
9-HYDROXYFLUORENE UNLABELED	(CAS-No.) 1689-64-1	0.000116	Not classified
2-HYDROXYPHENANTHRENE UNLABELED		0.000116	Xi; R36/37/38
4-HYDROXYPHENANTHRENE UNLABELED	(CAS-No.) 7651-86-7 (EC Index-No.)	0.000116	Xi; R36/37/38
3-HYDROXYPHENANTHRENE UNLABELED	(CAS-No.) 605-87-8	0.000116	Xi; R36/37/38
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
TOLUENE UNLABELED	(CAS-No.) 108-88-3 (EC-No.) 203-625-9 (EC Index-No.) 601-021-00-3 (REACH-no) 01-2119471310-51	99.99815	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304

# CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE ES-

5484

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
1-HYDROXYNAPHTHALENE (1-NAPHTHOL) UNLABELED	(CAS-No.) 90-15-3 (EC-No.) 201-969-4 (EC Index-No.) 604-029-00-5	0.000462	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Chronic 2, H411
2-HYDROXYNAPHTHALENE (2-NAPHTHOL) UNLABELED	(CAS-No.) 135-19-3 (EC-No.) 205-182-7 (EC Index-No.) 604-007-00-5	0.000462	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Irrit. 2, H319 Aquatic Acute 1, H400
1-HYDROXYPHENANTHRENE UNLABELED	(EC-No.) 207-602-4	0.000116	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
2-HYDROXYFLUORENE UNLABELED	(CAS-No.) 2443-58-5 (EC-No.) 219-478-9	0.000116	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
1-HYDROXYPYRENE UNLABELED		0.000116	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
3-HYDROXYFLUORENE UNLABELED	(CAS-No.) 6344-67-8 (EC-No.) 219-478-9 (Unlabeled) (EC Index-No.)	0.000116	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
9-HYDROXYFLUORENE UNLABELED	(CAS-No.) 1689-64-1	0.000116	Not classified
2-HYDROXYPHENANTHRENE UNLABELED		0.000116	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
4-HYDROXYPHENANTHRENE UNLABELED	(CAS-No.) 7651-86-7 (EC Index-No.)	0.000116	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H336
3-HYDROXYPHENANTHRENE UNLABELED	(CAS-No.) 605-87-8	0.000116	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335

Name	Product identifier	%	GHS-US classification
TOLUENE UNLABELED	(CAS-No.) 108-88-3	99.99815	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 2, H401
1-HYDROXYNAPHTHALENE (1-NAPHTHOL) UNLABELED	(CAS-No.) 90-15-3	0.000462	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
2-HYDROXYNAPHTHALENE (2-NAPHTHOL) UNLABELED	(CAS-No.) 135-19-3	0.000462	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Irrit. 2A, H319 Aquatic Acute 1, H400
1-HYDROXYPHENANTHRENE UNLABELED		0.000116	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
2-HYDROXYFLUORENE UNLABELED	(CAS-No.) 2443-58-5	0.000116	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
1-HYDROXYPYRENE UNLABELED		0.000116	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
3-HYDROXYFLUORENE UNLABELED	(CAS-No.) 6344-67-8	0.000116	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
9-HYDROXYFLUORENE UNLABELED	(CAS-No.) 1689-64-1	0.000116	Aquatic Acute 1, H400
2-HYDROXYPHENANTHRENE UNLABELED		0.000116	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
4-HYDROXYPHENANTHRENE UNLABELED	(CAS-No.) 7651-86-7	0.000116	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H336

# CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE

5484

ES-

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Name	Product identifier	%	GHS-US classification
3-HYDROXYPHENANTHRENE UNLABELED	(CAS-No.) 605-87-8	0.000116	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

Full text of R- and H- phrases: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Wash with plenty of soap and water, Get immediate medical advice/attention. Get medical advice/attention. Specific treatment (see Hazard pictograms (CLP) on this label).
First-aid measures after eye contact	: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Immediately call a poison center or doctor/physician.

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

Symptoms/effects	: Suspected of damaging fertility. Suspected of damaging the unborn child. (in contact with skin, if inhaled, if swallowed). Causes damage to organs (brain, kidneys, liver, urinary bladder) (in contact with skin, if inhaled, if swallowed).
Symptoms/effects after inhalation	: Harmful if inhaled. May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: Harmful in contact with skin. Causes skin irritation. Repeated exposure to this material can result in absorption through skin causing significant health hazard.
Symptoms/effects after eye contact	: May cause eye irritation.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways. Risk of lung edema.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

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

Fire hazard	: Highly flammable liquid and vapor.
Explosion hazard	: May form flammable/explosive vapor-air mixture.

#### 5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.
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##### 6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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##### 6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection. Avoid breathing dust, mist or spray.
Emergency procedures	: Ventilate area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

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

Methods for cleaning up	: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
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# CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE ES-

5484

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Avoid breathing dust, mist or spray.

Hygiene measures : Wash Both hands thoroughly after handling.

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

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical equipment.

Storage conditions : Store refrigerated (-5 °C to 5 °C). Protect from light.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	20.00000000 ppm USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Visual impairment. Female reproductive. Pregnancy loss. 2015 Adoption. Substances for which there is a Biological Exposure Index or Indices (see BEI® section). Not classifiable as a human carcinogen.; Component: Toluene CAS-No.: 108-88-3 Parameters: Toluene Value: 0.0300 mg/l Biological specimen: Urine Remarks: End of shift (As soon as possible after exposure ceases) Basis: ACGIH - Biological Exposure Indices (BEI); Component: Toluene CAS-No.: 108-88-3 Parameters: Toluene Value: 0.0200 mg/l Biological specimen: In blood Remarks: Prior to last shift of workweek Basis: ACGIH - Biological Exposure Indices (BEI); Component: Toluene CAS-No.: 108-88-3 Parameters: o-Cresol Value: 0.3000 mg/g Biological specimen: Urine Remarks: End of shift (As soon as possible after exposure ceases) Basis: ACGIH - Biological Exposure Indices (BEI)
USA NIOSH	NIOSH REL (TWA) (mg/m³)	375 mg/m³ USA. NIOSH Recommended Exposure Limits
USA NIOSH	NIOSH REL (TWA) (ppm)	100 ppm USA. NIOSH Recommended Exposure Limits
USA NIOSH	NIOSH REL (STEL) (mg/m³)	560 mg/m³ USA. NIOSH Recommended Exposure Limits
USA NIOSH	NIOSH REL (STEL) (ppm)	150 ppm USA. NIOSH Recommended Exposure Limits
USA OSHA	OSHA PEL (TWA) (mg/m³)	375 mg/m³ USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000
USA OSHA	OSHA PEL (STEL) (mg/m³)	560 mg/m³ USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000
USA OSHA	OSHA PEL (STEL) (ppm)	150 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000
USA OSHA	OSHA PEL (Ceiling) (ppm)	300 ppm USA. Occupational Exposure Limits (OSHA) - Table Z-2

# CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE ES-

5484

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE		
USA OSHA	Remark (OSHA)	OSHA PEL (TWA) - 200 ppm - USA. Occupational Exposure Limits (OSHA) - Table Z-2. Remarks: Z37.12-1967
TOLUENE UNLABELED (108-88-3)		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	20.00000000 ppm USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Visual impairment. Female reproductive. Pregnancy loss. 2015 Adoption. Substances for which there is a Biological Exposure Index or Indices (see BEI® section). Not classifiable as a human carcinogen.; Component: Toluene CAS-No.: 108-88-3 Parameters: Toluene Value: 0.0300 mg/l Biological specimen: Urine Remarks: End of shift (As soon as possible after exposure ceases) Basis: ACGIH - Biological Exposure Indices (BEI); Component: Toluene CAS-No.: 108-88-3 Parameters: Toluene Value: 0.0200 mg/l Biological specimen: In blood Remarks: Prior to last shift of workweek Basis: ACGIH - Biological Exposure Indices (BEI); Component: Toluene CAS-No.: 108-88-3 Parameters: o-Cresol Value: 0.3000 mg/g Biological specimen: Urine Remarks: End of shift (As soon as possible after exposure ceases) Basis: ACGIH - Biological Exposure Indices (BEI)
USA NIOSH	NIOSH REL (TWA) (mg/m³)	375 mg/m³ USA. NIOSH Recommended Exposure Limits
USA NIOSH	NIOSH REL (TWA) (ppm)	100 ppm USA. NIOSH Recommended Exposure Limits
USA NIOSH	NIOSH REL (STEL) (mg/m³)	560 mg/m³ USA. NIOSH Recommended Exposure Limits
USA NIOSH	NIOSH REL (STEL) (ppm)	150 ppm USA. NIOSH Recommended Exposure Limits
USA OSHA	OSHA PEL (TWA) (mg/m³)	375 mg/m³ USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000
USA OSHA	OSHA PEL (STEL) (mg/m³)	560 mg/m³ USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000
USA OSHA	OSHA PEL (STEL) (ppm)	150 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000
USA OSHA	OSHA PEL (Ceiling) (ppm)	300 ppm USA. Occupational Exposure Limits (OSHA) - Table Z-2
USA OSHA	Remark (OSHA)	OSHA PEL (TWA) - 200 ppm - USA. Occupational Exposure Limits (OSHA) - Table Z-2. Remarks: Z37.12-1967

### 8.2. Exposure controls

Appropriate engineering controls

: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Personal protective equipment

: Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.



Materials for protective clothing

: Wear suitable protective clothing and gloves.

Hand protection

: Wear suitable protective clothing and gloves.

Eye protection

: Wear eye protection. Chemical goggles or face shield with safety glasses.

Skin and body protection

: Wear suitable protective clothing, gloves and eye/face protection. Wear suitable protective clothing.

Respiratory protection

: In case of inadequate ventilation wear respiratory protection. Approved supplied air respirator. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear respiratory protection.

Environmental exposure controls

: Avoid release to the environment.



# CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE

5484

ES-

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 9: Physical and chemical properties

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

The properties listed below are for the solvent, the main component of this mixture.

Physical state	: Liquid
Appearance	: Liquid
Molecular mass	: 92.14 g/mol
Color	: Colorless
Odor	: Characteristic
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: -93 °C (-135 °F)
Freezing point	: No data available
Boiling point	: 110 - 111 °C (230 - 232 °F)
Flash point	: 4 °C (39.2 °F) - closed cup
Auto-ignition temperature	: 535 °C (995 °F)
Decomposition temperature	: No data available
Flammability (solid, gas)	: Highly flammable liquid and vapor
Vapor pressure	: 29.1 hPa (21.8 mmHg) at 20.0 °C (68.0 °F)
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Specific gravity / density	: 0.865 g/ml at 25 °C (77 °F)
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: 1.2 - 7 % (V)

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No additional information available

#### 10.2. Chemical stability

See storage and expiration date on CoA.

#### 10.3. Possibility of hazardous reactions

Not established.

#### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

#### 10.5. Incompatible materials

Strong acids. Strong bases.

#### 10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity : Not classified

CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE	
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h



# CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE

5484

ES-

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<b>TOLUENE UNLABELED (108-88-3)</b>	
LD50 oral rat	> 5580 mg/kg
LD50 dermal rabbit	12196 mg/kg
LC50 inhalation rat (mg/l)	12,500 - 28,800 mg/m <sup>3</sup> - 4 h
ATE CLP (dermal)	12196.000 mg/kg body weight
ATE CLP (vapors)	12.500 mg/l/4h
ATE CLP (dust, mist)	12.500 mg/l/4h

<b>1-HYDROXYNAPHTHALENE (1-NAPHTHOL) UNLABELED (90-15-3)</b>	
LD50 oral rat	1870 mg/kg
LD50 dermal rabbit	880 mg/kg
ATE CLP (oral)	1870.000 mg/kg body weight
ATE CLP (dermal)	880.000 mg/kg body weight

<b>2-HYDROXYNAPHTHALENE (2-NAPHTHOL) UNLABELED (135-19-3)</b>	
LD50 oral rat	1960 mg/kg
LD50 dermal rabbit	> 10000 mg/kg
LC50 inhalation rat (mg/l)	> ≥ 770 mg/m <sup>3</sup>
ATE CLP (oral)	1960.000 mg/kg body weight
ATE CLP (dust, mist)	1.500 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Suspected of damaging fertility. Suspected of damaging the unborn child. (if inhaled, if swallowed, in contact with skin).
Specific target organ toxicity – single exposure	: May cause drowsiness or dizziness.
Specific target organ toxicity – repeated exposure	: May cause damage to organs (liver, kidneys, brain, urinary bladder) through prolonged or repeated exposure (in contact with skin, if inhaled, if swallowed).
Aspiration hazard	: May be fatal if swallowed and enters airways. Based on available data, the classification criteria are not met
Potential Adverse human health effects and symptoms	: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. Based on available data, the classification criteria are not met.
IARC group	: 3
Symptoms/effects after inhalation	: Harmful if inhaled. May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: Harmful in contact with skin. Causes skin irritation. Repeated exposure to this material can result in absorption through skin causing significant health hazard.
Symptoms/effects after eye contact	: May cause eye irritation.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways. Risk of lung edema.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Toxic to aquatic life.

<b>TOLUENE UNLABELED (108-88-3)</b>	
EC50 Daphnia 1	8 mg/l Daphnia magna (Water flea) - 24h
LC50 fish 2	7.63 mg/l Oncorhynchus mykiss (Rainbow trout) - 96 h
EC50 Daphnia 2	6 mg/l Daphnia magna (Water flea) - Immobilization - 48 h
ErC50 (algae)	245 mg/l Chlorella vulgaris (Fresh water algae) - 24 h
ErC50 (other aquatic plants)	10 mg/l Pseudokirchneriella subcapitata (Green algae) - 24 h
NOEC (chronic)	5.44 mg/l Pimephales promelas (fathead minnow) - 7 d

<b>1-HYDROXYNAPHTHALENE (1-NAPHTHOL) UNLABELED (90-15-3)</b>	
LC50 fish 1	4.1 - 4.7 mg/l - 96 h, Pimephales promelas (fathead minnow) -

# CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE ES-

5484

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<b>9-HYDROXYFLUORENE UNLABELED (1689-64-1)</b>	
ErC50 (algae)	0.5 mg/l - 61 h, mortality <i>Dunaliella bioculata</i> -
<b>2-HYDROXYNAPHTHALENE (2-NAPHTHOL) UNLABELED (135-19-3)</b>	
LC50 fish 1	3.46 mg/l <i>Pimephales promelas</i> (fathead minnow) -96h

### 12.2. Persistence and degradability

<b>TOLUENE UNLABELED (108-88-3)</b>	
Persistence and degradability	Readily biodegradable.

### 12.3. Bioaccumulative potential

<b>TOLUENE UNLABELED (108-88-3)</b>	
BCF fish 1	0.05 mg/l <i>Leuciscus idus</i> (Golden orfe) - 3 d
Bioconcentration factor (BCF REACH)	90
<b>1-HYDROXYNAPHTHALENE (1-NAPHTHOL) UNLABELED (90-15-3)</b>	
Log Pow	2.85
<b>4-HYDROXYPHENANTHRENE UNLABELED (7651-86-7)</b>	
Log Pow	3.86

### 12.4. Mobility in soil

### 12.5. Results of PBT and vPvB assessment

### 12.6. Other adverse effects

Other information : Avoid release to the environment. Disposal must be done according to official regulations.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and local environmental control regulations.

Product/Packaging disposal recommendations : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Additional information : Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Dispose of as unused product. Hazardous waste due to toxicity.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

UN-No.(DOT) : 1294  
DOT NA no. UN1294

### 14.2. UN proper shipping name

Proper Shipping Name (DOT) : Toluene  
Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120  
Hazard labels (DOT) : 3 - Flammable liquid



Packing group (DOT) : II - Medium Danger  
DOT Special Provisions (49 CFR 172.102) : IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.  
T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)  
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling =  $97 / 1 + a (tr - tf)$  Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

DOT Packaging Exceptions (49 CFR 173.xxx) : 150  
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202  
DOT Packaging Bulk (49 CFR 173.xxx) : 242

# CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE

5484

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Marine pollutant : No

### 14.3. Additional information

Other information : No supplementary information available.

#### Overland transport

Packing group (ADR) : II  
Class (ADR) : 3 - Flammable liquid  
Hazard identification number (Kemler No.) : 33  
Classification code (ADR) : F1  
Hazard labels (ADR) : 3 - Flammable liquids



Orange plates :



Tunnel restriction code (ADR) : D/E  
Limited quantities (ADR) : 11  
EAC : 3YE  
Excepted quantities (ADR) : E2

#### Transport by sea

DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.  
MFAG-No : 130

#### Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L  
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L  
Civil Aeronautics Law : Flammable liquids

### 14.4. Environmental hazards

Other information : No supplementary information available.

### 14.5. Special precautions for user

### 14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
CERCLA RQ	1000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Subject to reporting requirements of United States SARA Section 313

# CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE ES-

5484

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<b>TOLUENE UNLABELED (108-88-3)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
CERCLA RQ	1000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Subject to reporting requirements of United States SARA Section 313
<b>1-HYDROXYPHENANTHRENE UNLABELED</b>	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
<b>2-HYDROXYFLUORENE UNLABELED (2443-58-5)</b>	
SARA Section 302 Threshold Planning Quantity (TPQ)	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
<b>1-HYDROXYPYRENE UNLABELED</b>	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
<b>1-HYDROXYNAPHTHALENE (1-NAPHTHOL) UNLABELED (90-15-3)</b>	
SARA Section 302 Threshold Planning Quantity (TPQ)	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
<b>3-HYDROXYFLUORENE UNLABELED (6344-67-8)</b>	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
<b>9-HYDROXYFLUORENE UNLABELED (1689-64-1)</b>	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
<b>2-HYDROXYPHENANTHRENE UNLABELED</b>	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
<b>4-HYDROXYPHENANTHRENE UNLABELED (7651-86-7)</b>	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
<b>3-HYDROXYPHENANTHRENE UNLABELED (605-87-8)</b>	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
<b>2-HYDROXYNAPHTHALENE (2-NAPHTHOL) UNLABELED (135-19-3)</b>	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313

# CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE ES-

5484

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 15.2. International regulations

#### CANADA

<b>CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE</b>	
Listed on the Canadian DSL (Domestic Substances List)	
<b>TOLUENE UNLABELED (108-88-3)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
<b>2-HYDROXYPHENANTHRENE UNLABELED</b>	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	D2B Toxic material causing other toxic effects.

#### 15.2.1. National regulations

No additional information available

### 15.3. US State regulations

<b>CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE()</b>				
U.S. - California - Proposition 65 - Carcinogens List	No			
U.S. - California - Proposition 65 - Developmental Toxicity	Yes			
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No			
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No			
No significant risk level (NSRL)	7000 µg/day			
State or local regulations	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List			
<b>TOLUENE UNLABELED (108-88-3)</b>				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	Yes	No	No	7000 µg/day
<b>1-HYDROXYPHENANTHRENE UNLABELED</b>				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	7000 µg/day
<b>2-HYDROXYFLUORENE UNLABELED (2443-58-5)</b>				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	7000 µg/day
<b>1-HYDROXYPYRENE UNLABELED</b>				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	7000 µg/day
<b>1-HYDROXYNAPHTHALENE (1-NAPHTHOL) UNLABELED (90-15-3)</b>				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	7000 µg/day

# CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE ES-

5484

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<b>3-HYDROXYFLUORENE UNLABELED (6344-67-8)</b>				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	7000 µg/day
<b>9-HYDROXYFLUORENE UNLABELED (1689-64-1)</b>				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	7000 µg/day
<b>2-HYDROXYPHENANTHRENE UNLABELED</b>				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	7000 µg/day
<b>4-HYDROXYPHENANTHRENE UNLABELED (7651-86-7)</b>				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	7000 µg/day
<b>3-HYDROXYPHENANTHRENE UNLABELED (605-87-8)</b>				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	7000 µg/day
<b>2-HYDROXYNAPHTHALENE (2-NAPHTHOL) UNLABELED (135-19-3)</b>				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	7000 µg/day
<b>TOLUENE UNLABELED (108-88-3)</b>				
<b>State or local regulations</b>				
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List				
<b>1-HYDROXYPHENANTHRENE UNLABELED</b>				
<b>State or local regulations</b>				
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List				
<b>2-HYDROXYFLUORENE UNLABELED (2443-58-5)</b>				
<b>State or local regulations</b>				
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List				
<b>1-HYDROXYPYRENE UNLABELED</b>				
<b>State or local regulations</b>				
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List				

# CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE

5484

ES-

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

1-HYDROXYNAPHTHALENE (1-NAPHTHOL) UNLABELED (90-15-3)
<b>State or local regulations</b>
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
3-HYDROXYFLUORENE UNLABELED (6344-67-8)
<b>State or local regulations</b>
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
9-HYDROXYFLUORENE UNLABELED (1689-64-1)
<b>State or local regulations</b>
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
2-HYDROXYPHENANTHRENE UNLABELED
<b>State or local regulations</b>
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
4-HYDROXYPHENANTHRENE UNLABELED (7651-86-7)
<b>State or local regulations</b>
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
3-HYDROXYPHENANTHRENE UNLABELED (605-87-8)
<b>State or local regulations</b>
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
2-HYDROXYNAPHTHALENE (2-NAPHTHOL) UNLABELED (135-19-3)
<b>State or local regulations</b>
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List

## SECTION 16: Other information

Data sources : 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of R-, H- and EUH-phrases:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Asp. Tox. 1	Aspiration hazard Category 1
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Flam. Liq. 2	Flammable liquids Category 2
Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H311	Toxic in contact with skin
H315	Causes skin irritation



# CDC OH-PAH NATIVE PAR STANDARD UNLABELED IN TOLUENE

ES-

5484

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects
R11	Highly flammable
R20/22	Harmful by inhalation and if swallowed
R21/22	Harmful in contact with skin and if swallowed
R24	Toxic in contact with skin
R36/37/38	Irritating to eyes, respiratory system and skin
R37/38	Irritating to respiratory system and skin
R38	Irritating to skin
R39	Danger of very serious irreversible effects
R41	Risk of serious damage to eyes
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation
R50	Very toxic to aquatic organisms
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R62	Possible risk of impaired fertility
R63	Possible risk of harm to the unborn child
R65	Harmful: may cause lung damage if swallowed
R67	Vapors may cause drowsiness and dizziness
F	Highly flammable
N	Dangerous for the environment
T	Toxic
Xi	Irritant
Xn	Harmful

NFPA health hazard

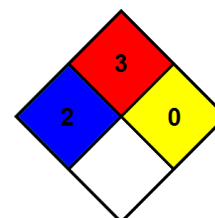
: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard

: 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



### Hazard Rating

Health

: 2 Moderate Hazard - Temporary or minor injury may occur

Flammability

: 3 Serious Hazard

Physical

: 0 Minimal Hazard

CIL Mixture SDS

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*