



PAH COCKTAIL FOR CARB METHOD 429 (D, 98%)

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

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ES-2528

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

1.1. Product identifier

Product form : Mixtures
Product name : PAH COCKTAIL FOR CARB METHOD 429 (D, 98%)
Product code : ES-2528

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 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
Eye Irrit. 2 H319
Muta. 1B H340
Carc. 1A H350
Asp. Tox. 1 H304
Aquatic Chronic 2 H411

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

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

Carc.Cat.1; R45
Carc.Cat.1; R49
Muta.Cat.1; R46
F; R11
Xn; R65
Xi; R36/38
N; R51/53

Full text of R-phrases: see section 16

GHS-US classification

Flam. Liq. 2 H225
Skin Irrit. 2 H315
Eye Irrit. 2A H319
Muta. 1B H340
Carc. 1A H350
Asp. Tox. 1 H304
Aquatic Chronic 2 H411

Full text of H statements : see section 16

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Adverse physicochemical, human health and environmental effects

Blood, Eyes, Female reproductive system, Bone marrow.

2.2. Label elements

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

Hazard pictograms (CLP) :



Signal word (CLP) :

Danger

Hazardous ingredients :

BENZENE-D6 (D, 99.5%)

Hazard statements (CLP) :

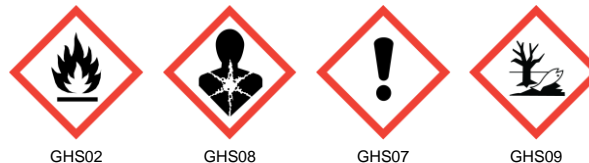
H225 - Highly flammable liquid and vapor
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H340 - May cause genetic defects (in contact with skin, if inhaled, if swallowed)
H350 - May cause cancer (in contact with skin, if inhaled, if swallowed)
H411 - Toxic to aquatic life with long lasting effects

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
P264 - Wash Both hands thoroughly after handling.
P273 - Avoid release to the environment.
P280 - Wear eye protection, face protection, protective clothing, protective gloves.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

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
H319 - Causes serious eye irritation
H340 - May cause genetic defects (Dermal, Inhalation, oral)
H350 - May cause cancer (Dermal, Inhalation, oral)
H411 - Toxic to aquatic life with long lasting effects

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 lighting, electrical, ventilating equipment
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P264 - Wash Both hands thoroughly after handling.
P273 - Avoid release to the environment.
P280 - Wear eye protection, face protection, protective clothing, protective gloves.
P301+P310 - If swallowed: Immediately call a poison center or doctor
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
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If exposed or concerned: Get medical advice/attention.
P321 - Specific treatment (see Hazard pictograms (CLP) on this label)
P331 - Do NOT induce vomiting.
P332+P313 - If skin irritation occurs: Get medical advice/attention.

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P337+P313 - If eye irritation persists: Get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.
P370+P378 - In case of fire: Use Alcohol resistant foam, Carbon dioxide, Dry chemical, Water spray to extinguish.
P391 - Collect spillage.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to Comply with applicable regulations

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
BENZENE-D6 (D, 99.5%)	(CAS-No.) 1076-43-3 (EC-No.) 214-061-8 (EC Index-No.) 601-020-00-8 (Unlabeled)	99.83148	F; R11 Carc.Cat.1; R45 Muta.Cat.1; R46 Carc.Cat.2; R49 Xn; R65 Xi; R38
BENZO[GHI]PERYLENE (D12, 98%)	(CAS-No.) 93951-66-7 (EC-No.) 205-883-8 (Unlabeled)	0.01053	T; N; R50/53
ACENAPHTHENE (D10, 99%)	(CAS-No.) 15067-26-2 (EC-No.) 201-469-6 (Unlabeled)	0.01053	N; R50/53 Xi; R36/37/38
ANTHRACENE (D10, 98%) substance listed as REACH Candidate (Anthracene)	(CAS-No.) 1719-06-8 (EC-No.) 204-371-1	0.01053	Xi; R36/37/38 N; R50/53
FLUORENE (D10, 98%)	(CAS-No.) 81103-79-9 (EC-No.) 201-695-5	0.01053	Carc.Cat.1; R45 N; R50/53
PYRENE (D10, 98%)	(CAS-No.) 1718-52-1 (EC-No.) 204-927-3 (Unlabeled)	0.01053	Xi; R36/38 N; R50/53
BENZO[K]FLUORANTHENE (D12, 98%)	(CAS-No.) 93952-01-3 (EC-No.) 205-916-6 (Unlabeled) (EC Index-No.) 601-036-00-5 (Unlabeled)	0.01053	Carc.Cat.1; R45 Xi; R36/38 N; R50/53
BENZO[B]FLUORANTHENE (D12, 98%)	(CAS-No.) 205-99-2 (Unlabeled) (EC-No.) 205-911-9 (Unlabeled) (EC Index-No.) 601-034-00-4 (Unlabeled)	0.01053	Xn; R65 Carc.Cat.1; R45 Carc.Cat.1; R49 N; R50/53
FLUORANTHENE (D10, 98%)	(CAS-No.) 93951-69-0 (EC-No.) 205-912-4 (Unlabeled)	0.01053	Xn; R22 N; R50/53
ACENAPHTHYLENE (D8, 98%)	(CAS-No.) 93951-97-4 (EC-No.) 205-917-1 (Unlabeled)	0.01053	Xn; R22 Xi; R36/37/38
BENZO[A]PYRENE (D12, 98%)	(CAS-No.) 63466-71-7 (EC-No.) 200-028-5 (Unlabeled) (EC Index-No.) 601-032-00-3 (Unlabeled)	0.01053	Carc.Cat.1; R45 Muta.Cat.1; R46 Repr.Cat.1; R61 R42 Xi; R38 N; R50/53
CHRYSENE (D12, 98%)	(CAS-No.) 1719-03-5 (EC-No.) 205-923-4 (Unlabeled) (EC Index-No.) 601-048-00-0 (Unlabeled)	0.01053	Carc.Cat.1; R45 Carc.Cat.2; R49 N; R50/53 Muta.Cat.3; R68
NAPHTHALENE (D8, 99%)	(CAS-No.) 1146-65-2 (EC-No.) 202-049-5 (Unlabeled) (EC Index-No.) 601-052-00-2 (Unlabeled)	0.01053	F; R11 N; R50/53 Xn; R22 Carc.Cat.3; R40
PHENANTHRENE (D10, 98%)	(CAS-No.) 1517-22-2 (EC-No.) 201-581-5 (Unlabeled)	0.01053	Xn; R22 N; R50/53

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Name	Product identifier	%	Classification according to Directive 67/548/EEC
BENZ[A]ANTHRACENE (D12, 98%)	(CAS-No.) 1718-53-2 (EC-No.) 200-280-6 (Unlabeled) (EC Index-No.) 601-033-00-9 (Unlabeled)	0.01053	Carc.Cat.1; R45 Carc.Cat.1; R49 N; R50/53
DIBENZ[A,J]ACRIDINE (D13, 97%)	(CAS-No.) 224-42-0 (Unlabeled)	0.01053	Carc.Cat.1; R45 Carc.Cat.3; R40
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
BENZENE-D6 (D, 99.5%)	(CAS-No.) 1076-43-3 (EC-No.) 214-061-8 (EC Index-No.) 601-020-00-8 (Unlabeled)	99.83148	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Muta. 1B, H340 Carc. 1A, H350 Asp. Tox. 1, H304
BENZO[GHI]PERYLENE (D12, 98%)	(CAS-No.) 93951-66-7 (EC-No.) 205-883-8 (Unlabeled)	0.01053	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
ACENAPHTHENE (D10, 99%)	(CAS-No.) 15067-26-2 (EC-No.) 201-469-6 (Unlabeled)	0.01053	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
ANTHRACENE (D10, 98%) substance listed as REACH Candidate (Anthracene)	(CAS-No.) 1719-06-8 (EC-No.) 204-371-1	0.01053	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410
FLUORENE (D10, 98%)	(CAS-No.) 81103-79-9 (EC-No.) 201-695-5	0.01053	Carc. 1A, H350 Aquatic Chronic 2, H411
PYRENE (D10, 98%)	(CAS-No.) 1718-52-1 (EC-No.) 204-927-3 (Unlabeled)	0.01053	Muta. 2, H341 STOT RE 1, H372 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)
BENZO[K]FLUORANTHENE (D12, 98%)	(CAS-No.) 93952-01-3 (EC-No.) 205-916-6 (Unlabeled) (EC Index-No.) 601-036-00-5 (Unlabeled)	0.01053	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 1B, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
BENZO[B]FLUORANTHENE (D12, 98%)	(CAS-No.) 205-99-2 (Unlabeled) (EC-No.) 205-911-9 (Unlabeled) (EC Index-No.) 601-034-00-4 (Unlabeled)	0.01053	Carc. 1A, H350 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
FLUORANTHENE (D10, 98%)	(CAS-No.) 93951-69-0 (EC-No.) 205-912-4 (Unlabeled)	0.01053	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410
ACENAPHTHYLENE (D8, 98%)	(CAS-No.) 93951-97-4 (EC-No.) 205-917-1 (Unlabeled)	0.01053	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
BENZO[A]PYRENE (D12, 98%)	(CAS-No.) 63466-71-7 (EC-No.) 200-028-5 (Unlabeled) (EC Index-No.) 601-032-00-3 (Unlabeled)	0.01053	Skin Sens. 1, H317 Muta. 1B, H340 Carc. 1B, H350 Repr. 1B, H360 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
CHRYSENE (D12, 98%)	(CAS-No.) 1719-03-5 (EC-No.) 205-923-4 (Unlabeled) (EC Index-No.) 601-048-00-0 (Unlabeled)	0.01053	Muta. 2, H341 Carc. 1B, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
NAPHTHALENE (D8, 99%)	(CAS-No.) 1146-65-2 (EC-No.) 202-049-5 (Unlabeled) (EC Index-No.) 601-052-00-2 (Unlabeled)	0.01053	Flam. Sol. 1, H228 Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
PHENANTHRENE (D10, 98%)	(CAS-No.) 1517-22-2 (EC-No.) 201-581-5 (Unlabeled)	0.01053	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
BENZ[A]ANTHRACENE (D12, 98%)	(CAS-No.) 1718-53-2 (EC-No.) 200-280-6 (Unlabeled) (EC Index-No.) 601-033-00-9 (Unlabeled)	0.01053	Carc. 1A, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
DIBENZ[A,J]ACRIDINE (D13, 97%)	(CAS-No.) 224-42-0 (Unlabeled)	0.01053	Carc. 2, H351

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Name	Product identifier	%	GHS-US classification
BENZENE-D6 (D, 99.5%)	(CAS-No.) 1076-43-3	99.83148	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Muta. 1B, H340 Carc. 1A, H350 Asp. Tox. 1, H304

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	: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
First-aid measures after inhalation	: If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.
First-aid measures after skin contact	: Wash with soap and plenty of water. Consult a physician.
First-aid measures after eye contact	: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
First-aid measures after ingestion	: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

Symptoms/effects	: May be fatal if swallowed and enters airways.
Symptoms/effects after inhalation	: May be harmful if inhaled. Causes respiratory tract irritation.
Symptoms/effects after skin contact	: May be harmful if absorbed through the skin. Causes skin irritation.
Symptoms/effects after eye contact	: Causes eye irritation.
Symptoms/effects after ingestion	: May be harmful if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Explosion hazard : Flash back possible over considerable distance. Container explosion may occur under fire conditions.

5.3. Advice for firefighters

Firefighting instructions : Use water spray to cool unopened containers.
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 : Flammable in presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

For containment : Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

6.4. Reference to other sections

No additional information available

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.
Precautions for safe handling	: 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. Eliminate all ignition sources if safe to do so.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. 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.
Storage conditions	: Store at room temperature away from light and moisture.
Incompatible materials	: Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

PAH COCKTAIL FOR CARB METHOD 429 (D, 98%)		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	0.50000000 ppm Leukemia Substances for which there is a Biological Exposure Index or Indices.
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	2.5 ppm Leukemia Substances for which there is a Biological Exposure Index or Indices.
BENZENE-D6 (D, 99.5%) (1076-43-3)		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	0.50000000 ppm Leukemia Substances for which there is a Biological Exposure Index or Indices.
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	2.5 ppm Leukemia Substances for which there is a Biological Exposure Index or Indices.
USA OSHA	OSHA PEL (TWA) (ppm)	10 ppm
BENZO[GHI]PERYLENE (D12, 98%) (93951-66-7)		
Italy - Portugal - USA ACGIH	ACGIH STEL (mg/m ³)	0.2 mg/m ³ California permissible exposure limits for chemical contaminants
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Benzo[ghi]perylene-CAS-No.- 191-24-2 ;Parameters-1-Hydroxypyrene (1-HP); Biological specimen - Urine; Basis-ACGIH - Biological Exposure Indices (BEI); Remarks - End of shift at end of workweek
ANTHRACENE (D10, 98%) (1719-06-8)		
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.2 mg/m ³
PYRENE (D10, 98%) (1718-52-1)		
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Parameters-1-Hydroxypyrene (1-HP). Biological specimen-Urine. Basis-ACGIH - Biological Exposure Indices (BEI). Remarks- End of shift at end of workweek.
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	0.1 mg/m ³ Potential Occupational Carcinogen NIOSH considers coal tar, coal tar pitch, and creosote to be coal tar products.
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.2 mg/m ³ 1910.1002 As used in §1910.1000 (Table Z-1), coal tar pitch volatiles include the fused polycyclic hydrocarbons which volatilize from the distillation residues of coal, petroleum (excluding asphalt), wood, and other organic matter. Asphalt (CAS 8052-42-4, and CAS 64742-93-4) is not covered under the 'coal tar pitch volatiles' standard OSHA specifically regulated carcinogen
FLUORANTHENE (D10, 98%) (93951-69-0)		
USA OSHA	OSHA PEL (Ceiling) (mg/m ³)	0.2 mg/m ³ Basis: California permissible exposure limits for chemical contaminants (Title 8, Article 107)
BENZO[A]PYRENE (D12, 98%) (63466-71-7)		
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.2 mg/m ³ Exposure should be carefully controlled to levels as low as possible.

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CHRYSENE (D12, 98%) (1719-03-5)		
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Chrysene 218-01-9 - 1-Hydropyrene (1-HP) - Urine - Remarks: End of shift at end of workweek. ACGIH - Biological Exposure Indices (BEI)
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	0.1 Potential Occupational Carcinogen. NIOSH considers coal tar, coal tar pitch, and creosote to be coal tar products. cylcohexane-extractable fraction. See Appendic C. See Appendix A. USA. NIOSH Recommended Exposure Limits
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.2 mg/m ³ USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants 1910.1002 As used in Paragraph 1910.1000 (Table Z-1), coal tar pitch volatiles include the fused polycyclic hydrocarbons which volatize from the distillation residues of coal, petroleum (excluding asphalt), wood, and other organic matter. Asphalt (CAS 8052-42-4, and CAS 64742-93-4) is not covered under the 'coal tar pitch volatiles' standard. OSHA specifically regulated carcinogen.
USA OSHA	OSHA PEL (Ceiling) (mg/m ³)	0.2 mg/m ³ California permissible exposure limits for chemical contaminants (Title 8, Article 107)
USA OSHA	Remark (OSHA)	Remarks: Cancer. Substances for which there is a Biological Exposure Index or Indices (see BEI section), see BEI for Polycyclic Aromatic Hydrocarbons (PAHs). Exposure by all routes should be carefully controlled to levels as low as possible. Confirmed animal carcinogen with unknown relevance to humans.

NAPHTHALENE (D8, 99%) (1146-65-2)		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	10.00000000 ppm Eye & Upper Respiratory Tract irritation. Hematologic effects. Eye damage.
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	15 ppm Eye & Upper Respiratory Tract irritation. Hematologic effects. Eye damage.

PHENANTHRENE (D10, 98%) (1517-22-2)		
Italy - Portugal - USA ACGIH	Remark (ACGIH)	ACGIH - Biological Exposure Indices (BEI)
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	0.1 mg/m ³ USA. NIOSH Recommended Exposure Limits. Remarks: Potential Occupational Carcinogen. NIOSH considers coal tar, coal tar pitch, and creosote to be coal tar products. cyclohexane-extractable fraction. See Appendix C. See Appendix A.
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.2 mg/m ³ USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants. Remarks: 1910.1002 As used in §1910.1000 (Table Z-1), coal tar pitch volatiles include the fused polycyclic hydrocarbons which volatilize from the distillation residues of coal, petroleum (excluding asphalt), wood, and other organic matter. Asphalt (CAS 8052-42-4, and CAS 64742-93-4) is not covered under the 'coal tar pitch volatiles' standard OSHA specifically regulated carcinogen.
USA OSHA	OSHA PEL (Ceiling) (mg/m ³)	0.2 mg/m ³ California permissible exposure limits for chemical contaminants (Title 8, Article 107)

8.2. Exposure controls

Personal protective equipment

: Safety glasses. Gloves. Protective clothing. Respiratory protection of the dependent type.



Hand protection

: Wear suitable protective clothing and gloves.

Eye protection

: Wear safety glasses with side shields (or goggles) and a face shield.

Skin and body protection

: Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection

: Wear appropriate NIOSH/MSHA approved respirator.

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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	: 84.15 g/mol
Color	: Colorless
Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: 5.5 °C (41.9 °F) - lit
Freezing point	: No data available
Boiling point	: 80 °C (176 °F) - lit
Flash point	: -11 °C (12.2 °F) - closed cup
Auto-ignition temperature	: 562 °C (1,044 °F)
Decomposition temperature	: No data available
Flammability (solid, gas)	: Highly flammable liquid and vapor
Vapor pressure	: 221.3 hPa (166.0 mmHg) at 37.7°C (99.9°F), 99.5 hPa (74.6 mmHg) at 20°C (68°F)
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Specific gravity / density	: 0.874 g/cm ³ 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	: 1.3 - 8 % (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

No additional information available

10.4. Conditions to avoid

Open flame. Direct sunlight.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

PAH COCKTAIL FOR CARB METHOD 429 (D, 98%)	
LD50 oral rat	2990 mg/kg
LD50 dermal rabbit	8263 mg/kg
LC50 inhalation rat (mg/l)	44700 mg/m ³ female - 4 h
ATE CLP (oral)	2990.000 mg/kg body weight
ATE CLP (dermal)	8263.000 mg/kg body weight

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PAH COCKTAIL FOR CARB METHOD 429 (D, 98%)	
ATE CLP (vapors)	44.700 mg/l/4h
ATE CLP (dust, mist)	44.700 mg/l/4h
BENZENE-D6 (D, 99.5%) (1076-43-3)	
LD50 oral rat	2990 mg/kg
LD50 dermal rabbit	8263 mg/kg
LC50 inhalation rat (mg/l)	44700 mg/m ³ female - 4 h
ATE CLP (oral)	2990.000 mg/kg body weight
ATE CLP (dermal)	8263.000 mg/kg body weight
ATE CLP (vapors)	44.700 mg/l/4h
ATE CLP (dust, mist)	44.700 mg/l/4h
PYRENE (D10, 98%) (1718-52-1)	
LD50 oral rat	2700 mg/kg Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Conjunctive irritation. Behavioral:Excitement. Behavioral:Muscle contraction or spasticity
LC50 inhalation rat (mg/l)	170 mg/m ³ Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Conjunctive irritation. Behavioral:Excitement. Behavioral:Muscle contraction or spasticity.
BENZO[B]FLUORANTHENE (D12, 98%) (205-99-2 (Unlabeled))	
LD50 oral rat	7.57 mg/kg TDL _o Oral Remarks: Liver: Changes in liver weight. Endocrine: Changes in thymus weight.
Additional information	LD50 Oral Mouse, 7.57 mg/kg
FLUORANTHENE (D10, 98%) (93951-69-0)	
LD50 oral rat	2000 mg/kg
LD50 dermal rabbit	3180 mg/kg
ACENAPHTHYLENE (D8, 98%) (93951-97-4)	
LD50 oral	1760 mg/kg Mouse - Remarks: Autonomic Nervous System: Other (direct) parasympathomimetic. Respiratory disorder. Blood: Hemorrhage.
ATE CLP (oral)	500.000 mg/kg body weight
Additional information	LD50 Oral Mouse - 1760 mg/kg
CHRYSENE (D12, 98%) (1719-03-5)	
Additional information	LD50 Intraperitoneal - Mouse - > 320 mg/kg
NAPHTHALENE (D8, 99%) (1146-65-2)	
LD50 oral rat	490 mg/kg
LD50 dermal rabbit	20000 mg/kg
LC50 inhalation rat (mg/l)	> 340 mg/m ³ 1 h
ATE CLP (oral)	490.000 mg/kg body weight
ATE CLP (dermal)	20000.000 mg/kg body weight
PHENANTHRENE (D10, 98%) (1517-22-2)	
ATE CLP (oral)	500.000 mg/kg body weight
Additional information	LD50 Oral Mouse - 700 mg/kg
BENZ[A]ANTHRACENE (D12, 98%) (1718-53-2)	
Additional information	LD50 Intravenous - rat - >200 mg/kg
Skin corrosion/irritation	: Causes skin irritation. Skin - Rabbit - Skin irritation
Serious eye damage/irritation	: Causes serious eye irritation. Eyes - Rabbit - Eye irritation
Respiratory or skin sensitization	: Not available No data available
Germ cell mutagenicity	: May cause genetic defects (in contact with skin, if inhaled, if swallowed).
Carcinogenicity	: May cause cancer (in contact with skin, if inhaled, if swallowed).
CHRYSENE (D12, 98%) (1719-03-5)	
Additional information	OSHA specifically regulated carcinogen.
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified

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Aspiration hazard	: May be fatal if swallowed and enters airways.
Potential Adverse human health effects and symptoms	: Inhalation of high concentrations of benzene may have an initial stimulatory effect on the central nervous system characterized by exhilaration, nervous excitation and/or giddiness, depression, drowsiness, or fatigue. The victim may experience tightness in the chest, breathlessness, and loss of consciousness. Tremors, convulsions and death due to respiratory paralysis or circulatory collapse can occur in a few minutes to several hours following severe exposures. Aspirations of small amounts of liquid immediately causes pulmonary edema and hemorrhage of pulmonary disease. Direct skin contact may cause erythema. Repeated or prolonged skin contact may result in drying, scaling dermatitis or development of secondary skin infections. The chief target organ is the hematopoietic system. Bleeding from the nose, gums, or mucous membranes and the development of purpuric spots, pancytopenia, leukopenia, thrombocytopenia, aplastic anemia and leukemia may occur as the condition progresses. The bone marrow may appear normal, aplastic or hyperplastic and may not correlate with peripheral blood-forming tissues. The onset of effects of prolonged benzene exposure may be delayed for months or years after the actual exposure has ceased. Blood disorders.
IARC group	: 1
Symptoms/effects after inhalation	: May be harmful if inhaled. Causes respiratory tract irritation.
Symptoms/effects after skin contact	: May be harmful if absorbed through the skin. Causes skin irritation.
Symptoms/effects after eye contact	: Causes eye irritation.
Symptoms/effects after ingestion	: May be harmful if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.

PAH COCKTAIL FOR CARB METHOD 429 (D, 98%)	
LC50 fish 1	5.9 mg/l <i>Oncorhynchus mykiss</i> (Rainbow trout) - 96 h
LC50 other aquatic organisms 1	230 mg/l <i>Lepomis macrochirus</i> (Bluegill) - 96 h
EC50 Daphnia 1	22 mg/l <i>Daphnia magna</i> (Water flea) - 48 h
LC50 fish 2	15 - 32 mg/l <i>Pimephales promelas</i> (Fathead minnow) - 96 h
LC50 other aquatic organisms 2	9.2 mg/l <i>Daphnia magna</i> (Water flea) - 48 h
ErC50 (algae)	29 mg/l <i>Pseudokirchneriella subcapitata</i> (Green algae) - 72 h
LOEC (acute)	17.2 mg/l <i>Pimephales promelas</i> (Fathead minnow) - 7 d
NOEC (chronic)	10.2 mg/l <i>Pimephales promelas</i> (Fathead minnow) - 7 d
BENZENE-D6 (D, 99.5%) (1076-43-3)	
LC50 fish 1	5.9 mg/l <i>Oncorhynchus mykiss</i> (Rainbow trout) - 96 h
LC50 other aquatic organisms 1	230 mg/l <i>Lepomis macrochirus</i> (Bluegill) - 96 h
EC50 Daphnia 1	22 mg/l <i>Daphnia magna</i> (Water flea) - 48 h
LC50 fish 2	15 - 32 mg/l <i>Pimephales promelas</i> (Fathead minnow) - 96 h
LC50 other aquatic organisms 2	9.2 mg/l <i>Daphnia magna</i> (Water flea) - 48 h
ErC50 (algae)	29 mg/l <i>Pseudokirchneriella subcapitata</i> (Green algae) - 72 h
LOEC (acute)	17.2 mg/l <i>Pimephales promelas</i> (Fathead minnow) - 7 d
NOEC (chronic)	10.2 mg/l <i>Pimephales promelas</i> (Fathead minnow) - 7 d
ACENAPHTHENE (D10, 99%) (15067-26-2)	
LC50 fish 1	2.2 - 3.1 mg/l <i>Cyprinodon variegatus</i> (sheepshead minnow) - 96 h
EC50 Daphnia 1	1.27 - 3.45 mg/l <i>Daphnia magna</i> (Water flea) - 48 h
ErC50 (algae)	0.52 - 0.53 mg/l <i>Pseudokirchneriella subcapitata</i> (green algae) - 96 h
ANTHRACENE (D10, 98%) (1719-06-8)	
LC50 fish 1	0.001 mg/l <i>Lepomis macrochirus</i> (Bluegill) - 96.0 h
EC50 Daphnia 1	0.1 mg/l <i>Daphnia magna</i> (Water flea) - 48 h
PYRENE (D10, 98%) (1718-52-1)	
LC50 fish 1	> 2 mg/l LC50 - <i>Oncorhynchus mykiss</i> (rainbow trout) - 96.0 h.
EC50 Daphnia 1	0.002 - 0.003 EC50 - <i>Daphnia magna</i> (Water flea) - 48 h
BENZO[B]FLUORANTHENE (D12, 98%) (205-99-2 (Unlabeled))	
EC50 Daphnia 1	> 1.024 mg/l Immobilization EC50 - <i>Daphnia magna</i> (Water flea) - 24 h
FLUORANTHENE (D10, 98%) (93951-69-0)	
LC50 fish 1	0.0077 mg/l <i>Oncorhynchus mykiss</i> (rainbow trout) - 96 h
EC50 Daphnia 1	> 0.005 - 0.01 mg/l Immobilization EC50 - <i>Daphnia magna</i> (Water flea) - 3 d
EC50 Daphnia 2	0.78 mg/l Immobilization EC50 - <i>Daphnia magna</i> (Water flea) - 20 h

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FLUORANTHENE (D10, 98%) (93951-69-0)	
NOEC (acute)	560 mg/l Cyprinodon variegatus (sheepshead minnow) - 96 h
NOEC chronic crustacea	0.085 mg/l Daphnia magna (Water flea) - 48 h
BENZO[A]PYRENE (D12, 98%) (63466-71-7)	
EC50 Daphnia 1	0.25 mg/l Daphnia magna (Water flea) - 48 h
EC50 other aquatic organisms 1	0.02 mg/l Pseudokirchneriella subcapitata (green algae) - 72 h
ErC50 (algae)	0.02 mg/l Pseudokirchneriella subcapitata (green algae) - 48 h
CHRYSENE (D12, 98%) (1719-03-5)	
EC50 Daphnia 1	1.9 mg/l Daphnia magna (Water flea) - 2 h
NAPHTHALENE (D8, 99%) (1146-65-2)	
LC50 fish 1	0.9 - 9.8 mg/l Oncorhynchus mykiss (rainbow trout) - 96 h
LC50 other aquatic organisms 1	1 - 6.5 mg/l Pimephales promelas (fathead minnow) - 96 h
EC50 Daphnia 1	1 - 3.4 mg/l Daphnia magna (Water flea) - 48 h
ErC50 (algae)	33 mg/l 24 h
LOEC (acute)	3.2 mg/l 3 d
NOEC (acute)	1.8 mg/l 3 d
PHENANTHRENE (D10, 98%) (1517-22-2)	
LC50 fish 1	3.2 mg/l Oncorhynchus mykiss (rainbow trout) - 96.0 h
EC50 Daphnia 1	0.86 mg/l Daphnia pulex (Water flea) - 24 h
DIBENZ[A,J]ACRIDINE (D13, 97%) (224-42-0 (Unlabeled))	
EC50 Daphnia 1	0.496 mg/l Immobilization EC50 - Daphnia magna (Water flea) - 24 h

12.2. Persistence and degradability

PAH COCKTAIL FOR CARB METHOD 429 (D, 98%)	
Persistence and degradability	Biodegradability Result: - Readily biodegradable.
BENZENE-D6 (D, 99.5%) (1076-43-3)	
Persistence and degradability	Readily biodegradable.
NAPHTHALENE (D8, 99%) (1146-65-2)	
Persistence and degradability	Biodegradability: Result: - Not readily biodegradable.
DIBENZ[A,J]ACRIDINE (D13, 97%) (224-42-0 (Unlabeled))	
Persistence and degradability	May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

BENZO[GHI]PERYLENE (D12, 98%) (93951-66-7)	
Log Pow	6.63
ACENAPHTHENE (D10, 99%) (15067-26-2)	
BCF fish 1	Lepomis macrochirus (Bluegill) - 28d
Bioconcentration factor (BCF REACH)	387
Log Pow	3.39 - 4.19
ANTHRACENE (D10, 98%) (1719-06-8)	
Bioconcentration factor (BCF REACH)	649
Log Pow	4.45
Bioaccumulative potential	Bioaccumulation Pimephales promelas (fathead minnow) - 42 d.
FLUORENE (D10, 98%) (81103-79-9)	
Bioconcentration factor (BCF REACH)	512
Bioaccumulative potential	Bioaccumulative Potential: Oncorhynchus mykiss (rainbow trout) - 24h.
PYRENE (D10, 98%) (1718-52-1)	
BCF fish 1	0.056 mg/l Other fish - 48 h
Bioconcentration factor (BCF REACH)	4810
Log Pow	4.88
BENZO[A]PYRENE (D12, 98%) (63466-71-7)	
BCF fish 1	0.0005 mg/l Lepomis macrochirus (Bluegill) - 48 h
Bioconcentration factor (BCF REACH)	3,208
Log Pow	5.97
Bioaccumulative potential	Bioaccumulation: Lepomis macrochirus (Bluegill) - 48h. Bioconcentration factor (BCF): 3,208.
CHRYSENE (D12, 98%) (1719-03-5)	
Log Pow	5.73

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NAPHTHALENE (D8, 99%) (1146-65-2)	
Log Pow	3.3
Bioaccumulative potential	Bioaccumulation: Fish- Bioconcentration factor (BCF): 427 - 1,158.
PHENANTHRENE (D10, 98%) (1517-22-2)	
BCF fish 1	0.00255 mg/l Pimephales promelas (fathead minnow) - 28 d
Bioconcentration factor (BCF REACH)	5100
Log Pow	4.46

12.4. Mobility in soil

PAH COCKTAIL FOR CARB METHOD 429 (D, 98%)	
Ecology - soil	Not available.

12.5. Results of PBT and vPvB assessment

ANTHRACENE (D10, 98%) (1719-06-8)	
This substance/mixture meets the PBT criteria of REACH, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH, annex XIII	

12.6. Other adverse effects

Other adverse effects : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.

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.

Ecology - waste materials : Dispose of as unused product.

SECTION 14: Transport information

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

14.1. UN number

UN-No.(DOT) : 1114
DOT NA no. UN1114

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Benzene
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

14.3. Additional information

Other information : No supplementary information available.

Overland transport

Packing group (ADR) : II
Class (ADR) : 3 - Flammable liquid

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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) : 1l
EAC : 3WE
APP : A(fl)
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.
DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"
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

Dangerous for the environment :

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

PAH COCKTAIL FOR CARB METHOD 429 (D, 98%)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
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	Fire hazard 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.
BENZENE-D6 (D, 99.5%) (1076-43-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.

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BENZENE-D6 (D, 99.5%) (1076-43-3)	
SARA Section 311/312 Hazard Classes	Fire hazard 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.

15.2. International regulations

CANADA

No additional information available

15.2.1. National regulations

PAH COCKTAIL FOR CARB METHOD 429 (D, 98%)
Listed on the Canadian NDSL (Non-Domestic Substances List)
BENZENE-D6 (D, 99.5%) (1076-43-3)
Listed on the Canadian NDSL (Non-Domestic Substances List)

15.3. US State regulations

PAH COCKTAIL FOR CARB METHOD 429 (D, 98%)()	
U.S. - California - Proposition 65 - Carcinogens List	Yes
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	Yes
State or local regulations	U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List

BENZENE-D6 (D, 99.5%) (1076-43-3)				
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)
Yes	Yes	No	Yes	

BENZENE-D6 (D, 99.5%) (1076-43-3)	
State or local regulations	
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List	

SECTION 16: Other information

Other information : This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

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

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1A	Carcinogenicity Category 1A
Carc. 1B	Carcinogenicity Category 1B
Carc. 2	Carcinogenicity Category 2
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Flam. Liq. 2	Flammable liquids Category 2
Flam. Sol. 1	Flammable solids Category 1
Muta. 1B	Germ cell mutagenicity Category 1B
Muta. 2	Germ cell mutagenicity Category 2

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Repr. 1B	Reproductive toxicity Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization, Category 1
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H228	Flammable solid
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H340	May cause genetic defects
H341	Suspected of causing genetic defects
H350	May cause cancer
H351	Suspected of causing cancer
H360	May damage fertility or the unborn child
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
R11	Highly flammable
R22	Harmful if swallowed
R36/37/38	Irritating to eyes, respiratory system and skin
R36/38	Irritating to eyes and skin
R38	Irritating to skin
R40	Limited evidence of a carcinogenic effect
R42	May cause sensitization by inhalation
R45	May cause cancer
R46	May cause heritable genetic damage
R49	May cause cancer by inhalation
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R61	May cause harm to the unborn child
R65	Harmful: may cause lung damage if swallowed
R68	Possible risk of irreversible effects
F	Highly flammable
N	Dangerous for the environment
T	Toxic
Xi	Irritant
Xn	Harmful

NFPA health hazard

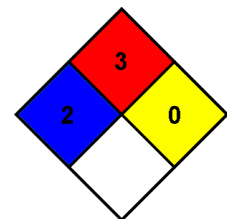
: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

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